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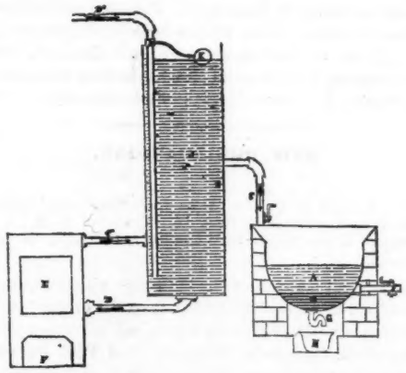
Purifying Quicksilver.

We give herewith a process employed at New Almaden for purifying quicksilver from the soot and other foreign matter which becomes intermingled with it during the condensing and reducing process, or that may become intermingled with it in any other way. The blast or draft which draws off the mercurial fumes into and through the condensers from the furnace where the ore is roasted, also carries with it a mechanical mixture of fine dirt, particles of unconsumed carbon, some ash, some undecomposed cinnabar, and various other impurities and minute particles of the metal. This combination of matter is deposited in the condensers in a condition resembling lamp black or paste, it having become moistened by the steam introduced from the fuel and ore, and, as a consequence, it becomes intermingled with the quicksilver.

JAMES B. RANDOL, Superintendent of the New Almaden mine, and CHAS. W. WRIGHT, invented and patented the following method of purifying the mercury when in the state referred to: The quicksilver, intermixed with soot or other extraneous substances, is placed in an iron tank marked *A*, to which water heated to the required degree is added, and the substance intimately mixed. Wood ashes or other suitable alkali are added for the purpose of still further cleaning the quicksilver, which is then drawn off through the pipe, *G*, into the vessel, *H*. The apparatus for supplying hot water is simple. A boiler or heating apparatus is placed under the tank; *E* being the fire door, and *F* the ash pit. The cold



water supply pipe, *D*, has a float ball, *K*, attached to the valve, so that the tank gets the requisite supply without attention. The cold water pipe, *D*, feeds the boiler with water which, on being heated, passes into the tank, *J*, through the hot water pipe, *C*. The water in the tank, *J*, is kept at the boiling point, and is drawn into the soot tank, *A*, as required through the hot water pipe, *C*.

When the soot and ashes are put into the tank, *A*, the hot water is shut off. A man mixes the soot, ashes and hot water thoroughly with a shovel, and thus separates the soot from the metal, allowing the quicksilver to pass off clear and pure through the siphon, *G*, into the vessel, *H*. The shaded lines in the tank, *A*, represent the water and soot, the darker part showing the position of the soot. This apparatus can be kept running continuously, and is very effective. The process has been in use at New Almaden for over a year, and is also in use at the Great Western mine. The Kellogg Furnace Company, at Knight's Valley, have also purchased the right to use it. All the quicksilver is saved from the soot by this process, which has worked satisfactorily at the mines where it has been in use.—*Mining and Scientific Press.*

The Wilmington, Illinois, Coal Field.*

BY JASPER JOHNSON, M. E.

CONTINUED FROM PAGE 322.

In that portion of the field embraced in Kankakee County, the eastern boundary enters the county from the north near the center of section 5, township 31 North, range 9 East, runs due south nearly three miles, then bears a little westward, and near the center of the west line of township 30 north, passes into Livingstone County. I am not sufficiently posted to give any details aside from the mere fact already stated, that the coal is reached by whim-shafts, the products of which are sold to farmers, no railroad line penetrating that part of the county. The seam worked is No. 2, Illinois Valley section, and is of the usual thickness. Below is a section of Hook's shaft in section 8, township 31 North, range 9 East.

1.	Soil and sandy loam	4	ft.	0 in.
2.	Brownish clay, with cobble stones	4	"	0 "
3.	Blue boulder clay	30	"	0 "
4.	Bluish clay shales	25	"	0 "
5.	Coal	2	"	10 "
6.	Fire clay	2	"	0 "
7.	Sandstone	6	"	0 "
	Total	73	"	10 "

The northern outline of the coal measures in Grundy County may be approximately given as a line running from near the northwest corner of the county, with some variations, in an east-southeast course to an old mine on Au Sable Creek, just above the Chickago, Rock Island and Pacific Railroad; thence southeasterly to the Goose Lake Slough, and easterly to the east end of the lake; thence northerly to the mouth of the Kankakee river. The Mazon Creek may be regarded as the western boundary of the Wilmington coal-field, as all the coals west of that stream, though substantially the same seam, are locally known and designated as the Waupecan and Morris beds, and, being marketed as such, do not come within the scope of this paper. Within the boundaries just laid down, there are, besides the Lower Seam, or No. 2, Illinois Valley section (the one generally worked all over Grundy County), four distinct deposits, known locally as the "Block Coal" Seam, found on Au Sable Creek, in the southeast quarter of section 19, township 34 North, range 8 East; and in Wilson's shaft, on the northeast corner of section 25, township 31 North, range 8 East, where the roof is a black, slaty shale, with heavy ironstone concretions covering about three feet of a very pure "block coal," with much mineral charcoal in the partings; the "Schoonmaker" seam, already described under the head of Will County; the "Waupecan" seam, on Waupecan Creek, originally worked on section 20, township 33 North, range 7 East, but now exhausted; the coal was said to be five feet thick, resting on a bed of fire clay, and is, perhaps, referable to Coal No. 4, Illinois Valley section, the "Mazon" seam, cropping out at various points along the banks of the creek of that name, though there is no positive evidence that future explorations will not prove this to be the Lower, or No. 2 Seam, fully described. A number of years ago, a shaft was sunk by WILLIAM BURT, Esq., near the southeast corner of section 19, township 33 North, range 8 East, beginning at about 25 feet below the general level of the prairie, which cut this seam. It presented the following section:

1.	Blue clay and sandy shale, with ferns	20	ft.	0 in.
2.	Coal	3	"	0 "
3.	Soft black shale	0	" 6 to	8 "
4.	Fire clay, with rootlets	0	" 6 to	8 "
5.	Hard, sandy clay	0	"	8 "
6.	Fire clay	2	"	6 "
	Total	27	"	6 "

The following is the section of an artesian well on the farm of JOHN HOLDERMAN, Esq., near the center of section 18, township 33 North, range 8 East:

1.	Gravel	15	feet.
2.	Sandstone	34	"
3.	Coal	3	"
4.	Sandy shale	88	"
5.	Limestone	185	"
	Total	325	"

A few whim-shafts are worked by individual miners, for country sale, at Jugtown, on the south side of Goose Lake, but the operations are so feeble as to hardly deserve the name of mining. The seam ranges from 30 inches to 4 feet, but is very much disturbed, and contains a large percentage of impurities, consisting of heavy bands of crystalline carbonate of iron and lime, with much disseminated pyrite. The coal at this point lies about 20 feet below the surface, and continues northward under the south half of Goose Lake, the bottom of the

* A paper read before the American Institute of Mining Engineers at Hazleton, Pa., October, 1874.

northern half of the lake being composed of the shaly limestones of the Cincinnati group.

There are three shafts at Braceville, two on section 25, township 33 North, range 8 East; one, long since abandoned, which reached the coal at a depth of 98 feet; an other, owned and at present operated by the Bruce Coal Company, 100 feet deep, and Augustine's shaft, located on section 26, 101 feet in depth, coal 3 feet thick, and of the same average quality and conditions as that worked at Braidwood. No detailed sections of these shafts are in the writer's possession.

In the town of Gardner (section 4, town. 31 North, range 8 East), the No. 2 seam is worked in a shaft 160 feet deep, immediately overlaid by the same conglomerate rock as is found over the coal in King's shaft at Braidwood. Have not been able to obtain a detailed section of this shaft. Only sufficient coal is produced to supply the local trade, the freight tariff on the railroads virtually excluding it from the general market.

By far the largest and most important operation in the Grundy County division of the Wilmington field is carried on at Diamond City (as already mentioned), on section 1, town. 32 North, range 8 East, by the Wilmington Coal Mining and Manufacturing Company. A detailed section of this shaft is appended below:

	Ft.	in.
1. Soil and yellow sand	4	9
2. Yellow clay	8	3
3. Stratified clay and sand	5	0
4. Hardpan	12	0
5. Shale	65	0
6. Coal	3	0
Total	98	0

At a distance of about five hundred feet west of the main shaft, an air-shaft pierces the coal seam at a depth of eighty-three feet, while a boring three hundred and sixty feet north-east from the air-shaft presents the following section:

	Ft.	in.
1. Soil	1	0
2. Yellow clay	2	0
3. Blue "	10	0
4. " " and gravel	3	6
5. Hardpan	0	6
6. Grey shales (soft)	15	0
7. Blue "	54	6
8. Coal	3	0
Total	89	6

A boring eighty rods north of this company's shaft, No. 1, on section 36, town. 33 North, range 8 East, gave the subjoined section:

	Ft.	in.
1. Soil	2	0
2. Yellow loam	3	0
3. Hardpan	5	0
4. Water-bearing gravel	5	0
5. Hardpan	4	0
6. Blue clay	5	0
7. Shales	57	6
8. Coal	3	2
9. Clay, very soft	0	6
10. Fire clay	1	0
Total	86	2

A number of other tests have been made preparatory to developing mines about two miles west of the property described above, the land being owned by the Chicago and Illinois River Railroad Company. This corporation is building a line of railway from Streator, in La Salle County, to Chicago, which runs diagonally in a north-easterly direction across the Grundy County coal measures, and it is confidently expected that the line will be finished by early winter. The company does not propose to enter into business as miners, but it is preparing to dispose of its coal interests by royalty leases. A few tests have already been made to determine the conditions of the coal, preparatory to sinking shafts. A boring made by ALVIN MATSON, Esq., an exceedingly careful and reliable explorer, in the autumn of 1866, at the half section corner between the west half of section 2, town. 32 North, range 8 East, and the South half of section 35, town. 33 North, same range, shows the following record:

1. Soil	3 feet.
2. Clays	27 "
3. Clay shales	72 "
4. Coal	2 feet 6 inches to 3 "
Total	105 "

The Wilmington Star Coal Company made a test at the south-east corner of the south-west quarter of sec. 2, same township and range, during the month of April of this year, showing an approximate detailed section as follows:

	Ft.	in.
1. Soil	1	6
2. Yellow sand	6	0
3. Clays	38	6
4. Sandstone	5	0
5. Clay shale	72	0
6. Coal	3	0
Total	126	0

The company is sinking a shaft near this point, and have reached a depth of about eighty feet. Another company is also making preparations to sink a shaft in the vicinity.

The Sulphur Industry of Sicily.

SULPHUR in its natural state is found in many parts of the globe, but nowhere(?) in so great plenty as in Sicily. It was found first as a deposit resulting from recent volcanic eruptions—called in Italy solfatare—and afterwards in deep-lying beds, where it is associated with sedimentary rocks (solfare). The amount of native sulphur furnished by the former is very trifling. Pouzzali, near Naples, is at present abandoned. Vulcano, in the Lipari Islands, yields 200 quintals of 100 kilos. yearly. The mines of sulphur, strictly so-called, have a far greater importance. Except in Italy, the chief are those of Radoboy in Croatia, Szwoswice in Gallicia, Czarkow, the Isle of Milo, Apt in the Vaucluse, Murcia, Bohar on the Red Sea, &c. The sulphur mines of the Romagna produce yearly more than 120,000 quintals. The Sicilian mines yield 180,000 tons of crude sulphur, without reckoning the enormous amount wasted by the treatment of the ore. The mines are scattered in the provinces of Caltanisetta, Girgenti, and Catania, besides two isolated beds, those of Lercara in the province of Palermo, and of Gibellina in Trapani. The exports of sulphur in 1871 were as follows:—

To France	16,909 tons.
England	31,036 "
America	41,758 "
Other countries	81,533 "
	171,236 "

The quantity taken by France and by England appears to be declining whilst the demand in America and in other countries is increasing. The author calculates that in fifty to sixty years the Sicilian mines will be exhausted. The treatment of the ore is very primitive: it is a simple fusion, where the sulphur itself serves for fuel, and which is carried on almost in the open air without any regard to waste. Thus the ore which contains 15 to 40 per cent. of sulphur yields only 10 to 25. Great damage is also done to agriculture, and to the health of the workmen. Various improved methods have been tried, but prove too costly, chiefly on account of the high price of fuel. In 1871, the price of a quintal of sulphur, delivered on board ship in a Sicilian port, was 12 francs, including the export duty of 1 franc. Before the expiration of two years, thanks to the railways, the price will be reduced to 10 frs. 30 cents, which, by suppressing the duty, might be lessened to 9 frs. 50 cents. Sicilian sulphur could thus be delivered at about 10 frs. at Marseille and 12 to 13 frs. in the ports of England and the North Sea. The use of pyrites instead of sulphur represents a saving of 4 frs. per quintal at Marseille; 6 frs. in Belgium and Northern France; and 5 to 6 francs in England. Native sulphur, as compared with pyrites, offers certain practical advantages, which, according to BALARD and PARODI, may be valued at 2·27 frs. per quintal. The economy of using pyrites is thus reduced per quintal to 1·73 frs. in Marseille 3·73 frs. in Belgium, and 3·23 frs. in England. The author concludes that the manufacture of chemical products in Italy will always be restricted by the scarcity of fuel.—*Moniteur Scientifique, September*, 1874.

NEW PUBLICATIONS.

THE BLOW PIPE: *A Guide to its Use in the Determination of Salts and Minerals.* Compiled from various sources by GEO. W. PLYMPTON, C. E., A. M., Professor of Physical Science in the Polytechnic Institute, Brooklyn, N. Y. New York: D. VAN NOSTRAND. 1874.

IN view of the excellent manuals of the blow-pipe which Professors CORNWALL and NASON have edited in American editions from the originals of RICHTER and ELDERHORST, there was perhaps no very urgent call for a new one from the accomplished editor of the *Engineering Magazine*. But Prof. PLYMPTON has made a convenient text-book for beginners, copying into it, as a third part, the tables of reactions for the determination of minerals first prepared by FUCHS of Heidelberg. The addition of one more table, giving hardness, gravity, crystal-system and chemical formula of each mineral, would make it complete as a hand-book for practice also. It is neatly printed, and very compact, containing only 166 duodecimo pages, if we except VAN NOSTRAND'S inevitable catalogue of publications at the end.

Nova Scotia Coals at Malaga, Spain.

WE take the following extracts from a private letter, dated Malaga, Spain, Oct. 19, 1874: "A vessel with coal came from Halifax, last year, and the consignees, an old established American house, did all they could to place it. Samples were handed to parties in the coal trade, who, after using them, refused to purchase even at 20s. per ton. Soap Manufacturers did the same, and after some expense, the consignees took the cargo at 20s., having the means, through their connections, to place it at that price with an iron foundry and railway, who are using it by mixing one-third with English coals.

The supply of coal comes to this port in two ways—one by orders sent to Cardiff and Newcastle, and the other by vessels chartered to load here, that load coal in England to sell at the best they can—generally not higher than 25s. @ 26s. on board. We have applied to parties in the trade and to manufacturers, who all agree in saying that they prefer paying 27s. @ 28s. for Newcastle, Toutrenant coals, or 2s. to 3s. more for Cardiff.

"At Gibraltar there is a large consumption of steamers going and coming to and from the East. These lines have floating depots in the Bay, and if American coals were landed there at less cost, they might be brought into use."

On the Determination of Sulphur in Coal and Coke.

By W. F. K. STOCK, F.C.S.

IT is proposed by ESCHKE (*Chem. Centralbl.*, 1874, 301) to determine sulphur in coal or coke by the combustion of the fuel by atmospheric oxygen, in contact with mixed sodium carbonate and magnesium oxide in a platinum crucible, and to secure the conversion of any other oxygen or sulphur compounds into sulphates by subsequent ignition with ammonium nitrate.

For some time prior to ESCHKE'S communication, I had been endeavoring to devise a more satisfactory method than any of those in general use, such as oxidation by fuming nitric acid, fusion with mixed alkaline nitrates and carbonates, or deflagration with potassium nitrate alone. After many trials, attended with indifferent success, I eventually adopted the following, as being a process combining simplicity with rapidity and uniform accuracy of results:

One grm. of coal or coke in fine powder and 1 grm. of pure lime are mixed in a platinum capsule 9 c.m. in diameter, having perpendicular sides 1·3 c.m. in depth, and weighing about 30 grms.; distilled water is then added in sufficient quantity to form a thin paste of the consistency of cream, and the whole stirred with a short glass rod until the operator is sure that every particle of the fuel under examination is in perfect contact with the solution of calcium hydrate. The capsule is now heated upon a thick cast-iron plate by means of a Bunsen's burner, and as soon as the mass becomes dry, which is speedily accomplished, it is stirred into a coarse powder, and heated to bright redness in a muffle for about twenty minutes, at the end of which time the whole of the carbon will have undergone combustion. The capsule is allowed to cool, and 3 c.c. of a concentrated solution of ammonium nitrate are added. In making this addition, care must be taken not to allow the solution to mix too freely with the assay, otherwise loss of substance is sure to result from the energetic action of the calcium oxide upon the ammonium salt. It is best to scrape a portion of the lime from the bottom of the platinum vessel, and to drop the solution gradually upon the bare spot by a pipette. The mass is again brought to dryness and heated to redness for five minutes, then cooled, dissolved in dilute HCl, and the sulphur determined as $BaSO_4$ in the usual manner.—*Chem. News.*

Mine Owners, Attention!!

IT should be borne in mind by all holders of unpatented mining claims that the time for expenditure thereon of the amount fixed by Act of Congress of May 10, 1872, expires with the first of January next, and that a default to do the required amount of work or make the specified expenditure will work a forfeiture of all right therein.

There is another exceedingly important feature of this provision of the law, in this—that although all proceedings for patent may have been had, the final payment made to the Receiver, and the case sent to Washington for patenting, that until the patent itself is actually issued the necessity still exists for doing the work or making the expenditure upon the claim to prevent a relocation, the same as if the application for patent had not been made, as the law requires the annual expenditure to be made until the issuance of a patent for the claim.

Parties having claims pending at Washington should not, therefore, fall into the error of supposing that they are relieved from doing work to hold such claims, the patent title itself alone relieving the claim from that necessity.

English Patents.

Improvements in obtaining a white pigment, and in the process employed therefore. JOHN BRYSON ORR, manufacturing chemist, Glasgow, Lanark, N. B. February 10, 1874.—No. 517. The features of novelty which constitute this invention are—First. The production of a compound or combination of barium sulphate and zinc sulphide. Second. The chilling of the said compound or combination so as to increase its density, and impart body thereto.

Improvements in the manufacture and production of common salt, and in the apparatus employed therein. FREDERICK BALE, Government science teacher, Coventry Hospital, Droitwich, Worcestershire. February 10, 1874. No. 521. This invention has for its object improvements in the manufacture and production of common salt, whereby a great saving in time and expense will be secured. This is accomplished by bringing the salt-cake and alkali manufacture into the common salt-making districts, and passing the hydrochloric acid evolved into the brine, and thus precipitating the sodic chloride or common salt.

Improvements in the manufacture of building materials and other similar products. JOSEPH DELÉON, Boulevard de Strasburg, Paris. February 10, 1874.—No. 525. This consists in producing imitation stone, marble, brick, as well as tiles and ceramic blocks of all kinds, by a composition of powdered limestone and sand with magnesia, chloride of magnesium, and carbonate of soda. These being all mixed are moulded into the form desired, when the three last-named ingredients react chemically, and the whole mass becomes firmly aggregated.

Improvements in the manufacture of size. THOMAS BLACKBURN, manufacturing chemist, Mellor, near Blackburn, Lancaster. February 12, 1874.—No. 540. My invention consists in combining chloride of zinc, or any other suitable salt of zinc, or salts of alumina or magnesia, caustic potash, sulphite of soda, or potash and water, either with or without farinaceous matter, or china clay, or soap-stone, or gum, or glue, or other adhesive substances.

Improvements in precipitating metallic copper from its solutions, and in obtaining a utilisable material from the agent employed for the purpose. JOHN THOMPSON DUNCAN, accountant, Glasgow, Lanark, Scotland. (A communication from THOMAS STERRY HUNT, Boston, Mass., U.S.A.) February 12, 1874.—No. 546. Tin-plate, scrap, or waste is used for precipitating copper from its solutions, and the adhering tin is saved. The copper solutions contain protochloride of copper, and a sulphate of soda or other base. The tin is recovered by its solution and precipitation as an oxide.

Notes.

The Delaware, Lackawanna and Western Railroad's new Connections.—The arrangement heretofore existing between the New Jersey Central and Delaware, Lackawanna and Western railroads, for the transportation of coal over the New Jersey Central to Elizabeth, to the extent of sixty thousand tons per month, is about being brought to a close by the Delaware, Lackawanna and Western giving notice of the intention of the latter company to discontinue the arrangement after May 1st, 1875. Having all the conveniences for handling coal at Hoboken, they will save in expense by sending the entire product by the Morris and Essex. This will be a large item to be taken from the Central and placed to the credit of the Delaware, Lackawanna and Western (lessees of the Morris and Essex). Besides the coal will be delivered at Hoboken instead of Elizabeth, which will be a saving to the buyers of coal.

There is a project on foot to make the Delaware, Lackawanna and Western (which now has lines direct from Hoboken to Oswego) a trunk line west. New York capitalists have purchased a road partly finished from Oswego to Suspension Bridge, and expect to have the road completed by the Fourth of July, when trains will run direct from Hoboken to Suspension Bridge, and there connect with the Canada Southern. This will be about the shortest route from the seaboard to the West.—*Easton Express.*

Blackband Ore of the Kanawha.—The *West Virginia Courier* states that a vein of superior black band ore has been found on the waters of Davis Creek, about eight miles from Charleston. It is located on the mountain ridge separating Davis Creek, of the Kanawha River, from Briar Creek, of Big Coal River, and lies about 200 feet from the top of the ridge. It is six feet thick. This ore has been sent to Pittsburgh and analyzed with the following result:

Silicic acid	4.64
Carbonate of iron	68.35
Phosphoric acid	.57
Sulphur	.42
Carbonaceous matter, lime and alumina	26.02
Total	100.00

That is, it contains 33 per cent. of metallic iron. And, when thoroughly roasted it contains 65 per cent. of metallic iron. It has enough carbonaceous matter to roast it.

Extraction of Sulphur.—If sulphur and gypsum, both finely pounded, are mixed and heated in a long test tube in the oil-bath, when the temperature reaches to between 115° to 120° the sulphur melts, and the gypsum floats upon its surface. If the temperature is maintained for an hour within these limits, nothing further ensues beyond the occasional escape of a bubble of the watery vapor, which condenses on the sides of the tube. But if the temperature is raised beyond 130°, the production of watery vapor is increased to such an extent as to form a kind of effervescence, whilst a faint odor of sulphuretted hydrogen accompanies the vapor. If the temperature is carried up to 165° the liberation of steam soon decreases as the liquid sulphur becomes viscid, and hinders the vapor from escaping freely. If sulphur and gypsum are heated in a covered crucible to 450°, anhydrous sulphuric acid is formed, and sulphide of calcium remain. Thus, at 130°, the gypsum loses water and becomes anhydrous, whilst at higher temperatures the sulphur takes oxygen from the sulphate of lime. These phenomena have practical bearing upon the extraction of sulphur by distillation, since the minerals often contain sulphur.—F. SESTINI in the *Gazetta Italiana.*

Alabama Coals for Coking.—A few months since, a number of enterprising gentlemen, citizens of our own State, desiring to determine, *by actual test*, the qualities of Alabama Coal for manufacturing iron, formed an experimental company, in connection with the Eureka Furnaces at Oxmoor, on the line of the South and North Alabama Railroad. This Company, we are glad to learn, have just completed, at Oxmoor, ten patent ovens under the supervision of Mr. LEWIS SCHANTZ, the patentee. The ovens are models of workmanship in point of durability and apparent capacity, although constructed as an experiment. On Monday last, the first discharge of coke from these ovens was made and the test was entirely satisfactory. The coke is pronounced by experts *equal in all respects* to any made in the United States! The coal used was from the mines of Messrs. Moss & HOGAN, located in the Warrior Coal Field, immediately on the line of the South & North Alabama Railroad in Jefferson County.

Isabella Iron Works.—For the week ending November 7th Isabella furnace No. 1 made 702½ tons of iron. This work was done by the No. 1 furnace, 18x75, of 11,700 cubic feet internal capacity. The proportion of the charge was: 787 lb. of coke; 950 lb. of ore and cinder; 375 lb. of lime. The number of charges would vary with amount of iron made. The furnace is blown by two blast engines, 84 inch cylinder and 4 feet stroke, through seven five-inch tuyeres, the heat being supplied by four hot blast ovens. Heat of the blast 1000° F. Pressure 8 lb.—*American Manufacturer.*

Manufacture of Lampblack.—The gas from a gas well near McCoys Station on the Cleveland and Pittsburgh railroad is being utilized in the manufacture of lampblack. About 45,000 cubic feet of gas are thrown out per day, only half of which is used, the rest going to waste. The utilization of gas from this well was commenced about the year 1865, since which time there appears to be no diminution of the quantity of gas, the works having been in operation ever since that time.

Prof. A. W. Hoffman announces that the discovery of his pupils, MM. TIEMANN and HAERTMANN, who succeeded in producing vanillin from the cambium of the pine tree, has been made available in practice. The juice of a tree of average size yields vanillin of the value of about 100 francs, and the timber is not damaged by the operation.—*Comptes Rendus Hebdomadaires des Séances de l'Academie des Sciences*, No. 11, *September* 14, 1874.

Wages in San Francisco.—In San Francisco, machinists' wages range from $3 to $6, the average being $4 a day. Few of the trade are idle. Boiler-makers are generally employed at from $2 50 to $3 a day. There are about 200 in the city. Of the moulders, many are unemployed at present. Their wages range from $2 50 to $4 a day. The blacksmiths are flourishing. They receive $5 a day wages, and strikers $3.

Preserving Iron and Steel Surfaces from Rust.—A varnish for this purpose may be made of 120 parts resin, 180 sandarac, 50 gumlac. They should be heated gradually until melted and thoroughly mixed, then 120 parts turpentine added, and subsequently, after further heating, 180 parts rectified alcohol. After careful filtration, it should be put into light corked bottles.—*Journal of Applied Chemistry.*

THE ENGINEERING AND MINING JOURNAL.

NEW YORK, SATURDAY, NOVEMBER 28, 1874.

ROSSITER W. RAYMOND, Ph. D.,
RICHARD P. ROTHWELL, C. E., M. E., } Editors.

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WE have recently had numerous complaints of the non-receipt of this journal by many of our foreign subscribers. We will be obliged to those who advise us promptly of any delay in its receipt, as it will enable us to ascertain and correct the cause of irregularity.

OUR friend, whose scissors contribute so largely to the pages of our voluminous contemporary, the *Iron Age*, must be of a very confiding disposition, for we find him constantly accepting, without question, the most astounding estimates of "promoters" and other interested parties, on the cost of producing coal and iron in various parts of the country. The latest exploit in this direction has been some arithmetical gymnastics showing the profits to be derived from the investment of $3,000,000 in a railroad to connect the Alabama coal and iron deposits with the Tennessee River at Chickasaw, and the enormous profits that would be made on Alabama Coal on the Ohio when sold in competition with that from Pittsburgh and elsewhere.

The results are magnificent (on paper), and the solemnity with which these prestigiatory figures are given editorially fully maintains the well earned reputation of our great contemporary.

Soft Phosphor Steel.

OUR readers will have perused with pleasure the translation which we have published of a manuscript report on the process of manufacturing, at Terre-Noire, in the South of France, steel boiler plate of remarkable ductility and strength. With regard to steel rails containing much more phosphorus than has usually been considered permissible, we learn from private sources that several hundred tons of Terre-Noire rails, containing as much as 0.3 per cent. of phosphorus, with 0.20 to 0.25 per cent. of carbon, were laid last Summer on the North of France Railway, after sustaining satisfactorily the preliminary "falling test." It is thought that good rails can thus be successfully manufactured from one-third old iron rails, one-third good ore, and one-third steel scrap, the Siemens-Martin process being employed, with the substitution of ferro-manganese for spiegeleisen. M. JORDAN, President of the Institution of Civil Engineers, is said to be strongly of this opinion.

On the other hand, there are not wanting eminent metallurgists who look with considerable doubt upon the employment of phosphor steel, particularly in countries subject to extremes of cold weather. There is no doubt, they say, that by means of ferro-manganese softer steel (that is, steel with less carbon) can be made than when spiegel, which itself contains carbon, is employed. If ferro-manganese could be cheaply made, such softer steel might be brought into the market with great advantage, and thus phosphoric ores and old iron rails, which have hitherto not been available for such a purpose, might be utilized in steel-making. But the conservative metallurgists to whom we allude—including at present the leading English authorities—fear that the tendency will be to deteriorate the quality of steel, and make it an unsafe material for construction. They point out the difficulty of ascertaining the hardness of every charge, and assorting it accordingly, so as to be sure that the hardness is not greater than is prescribed.

It seems to us that the question of commercial economy is the vital one. The control over the product offered by the Martin process is so complete that the manufacture of a uniform quality of steel will not be difficult. But the employment of ferro-manganese depends upon the price at which it can be furnished; and the lowest price we have thus far heard mentioned is 24 cents per pound—about the cost given at Terre-Noire. This is so high, compared with spiegel, as to counterbalance, we fear, the gain to be expected from the use of inferior materials in the manufacture.

Knowledge and Skill in the Iron Business.

WHEN Mr. BELL stated recently, in his remarks to the Mining Engineers at their Hazleton meeting, that he thinks we are not using fuel with the utmost economy, and suggested that, with such ores and such coal as we have, we should either reduce the consumption of the latter or "*know the reason why*," he struck the very key-note of intelligent progress. Not in the matter of the consumption of fuel alone, but in the various items which together form *blast-furnace practice*, we should know the reason why, in success and in failure alike. This is where many of our ironmasters are "behind the times," for there are, comparatively, few of the managers of our ironworks who keep themselves in any degree informed of the progress being made in the metallurgy of iron, or who avail themselves of the advantages within their reach.

"Knowing the reason why" is the very foundation for improvement, and when this is more fully appreciated by our ironmasters, we shall find that without reducing the rate of wages, the cost of iron can be greatly lessened in many of our works.

The following extract from an article in the *Railroad and Mining Register* contains much matter for the consideration of those who direct this great industry. It is scarcely necessary to tell our readers that the *de facto* editor of the *Register* is the able mining engineer and metallurgist, Mr. J. B. PEARSE, whose experience and sound practical judgment give great weight to his opinions.

> We want knowledge and skill from all sources, but only such as will adapt themselves to American circumstances. We must work out a system of our own.
>
> "We regard it as quite clearly shown by the statements of Mr. HEWITT and others that the difference in price of iron in producing countries is due to the cost of labor. Iron production is practically all labor from the mining of the coal and ore onward, while the amount of capital required increases with the purity of iron as iron. That cheaper labor and greater capital are essential to the success of the iron trade are truisms. The labor we can not cheapen materially, but we can improve processes and do away with a portion of the amount required. The gradual average rise of wages in all countries and sharp competition will compel these improvements even with no other incentive. But we must *make* the capital or get it from investors; in either case we must have a sure basis for the trade, for if its conditions are uncertain capital will not go into the trade; nor will it be made in it. It is, therefore, in our opinion, wrong to say 'when we have merely adopted the methods in constant use in the Old World we can dispense with the tariff and defy foreign competition.' The statement will not be supported by the facts. The methods of the Old World are few of them of such a character as to be adopted unchanged. We have adopted many of them already, and have improved so much on them that American engineers are now in Europe introducing American improvements. The methods are the least part of our need. We must pay salaries to able experts like those paid in England and on the Continent, and we must get together a body of men capable of working out an American system of metallurgy. Many of them we have now and they are doing well, but we want more and a better appreciation in the community of intelligent American management."

Yes, what we want in the iron business is Knowledge and Skill. With these, there needs no such proviso "but only such as will adapt themselves to American circumstances," for a knowledge of the business will prevent a blind copying of what others have done. In fact, the trouble with us is that we have had too much of this copying from generation to generation, till many of our furnaces are no better than their prototypes of thirty or forty years ago—and when we speak of "working out a system of our own," it is simply stating again the necessity for an improvement in our processes of iron making; for the method adapted to one part of the world is equally well adapted to the treatment of similar ores, with like conditions of fuel and flux, elsewhere, and in the countries with which we have to compete these conditions do not vary greatly. If our ironmasters would avail themselves more freely of the services of able experts, such as we have among us, to examine into the working of their furnaces, and advise with them when building new works, they would certainly "find it pay." Let them make a fuller use of the chemist's art to ascertain the reason why at one time their furnaces do better than at other times. Let them at all times analyze the stock and note well the minutest conditions under which success or failure is attained, and let them not be chary in making public these results. The experience of others, which their publication will draw out, will usually be of great value; not that we would advocate the making public of their business, but there is much of their experience, the publication of which would benefit the whole business without injuring the givers.

However able and skillful may be the manager of an iron works, the multiplicity of his duties rarely gives him time to keep thoroughly "posted" on the progress of metallurgy elsewhere. He thus loses much, and while managing his own works with skill, and, it may be, introducing many improvements, he does so often as the result of a long and expensively acquired experience, while, had he been better acquainted with what was going on in other places, he might have attained the same results at a greatly reduced cost both of time and money. We have among us engineers and metallurgists who combine thorough practical knowledge of the business with that familiarity with science which enables them to comprehend the true causes of the phenomena they witness at the furnace, and who make it their business to keep informed on all that is new in metallurgy and the management of works. The superintendents of our furnaces, while

they may be able and skillful men, and better able, may be, to manage the works than are these experts, would yet be largely benefited by availing themselves of the more extended acquaintance of these latter with modern practice. Not that this would relieve the intelligent manager from the necessity of study, but simply that it would place within his reach knowledge which, from the necessities of the case, he has not the opportunity of otherwise acquiring.

Let our ironmasters, either singly or in combination, employ the ablest experts that can be found, and let it be the business of these consulting engineers to devote their whole time to acquiring a knowledge of the experience and improvement of others throughout the world, and by consultation with, (not dictation to,) the managers of our own works, they would enable us to profit by these improvements without having to find them out by the costly lessons of failure. We are living in an age of progress, and the works that are perfect according to the practice of to-day, will be wasteful and old-fashioned some years hence. And it is only by availing ourselves of the skill, the knowledge and experience of all the world, and adg s u ch improvements as are adapted to the special conditions of our iron works, that we can attain that preëminence in iron metallurgy which both our unrivalled natural resources and the intelligence of our people justify us in predicting.

The Pig Iron Trade.

ON the 24th inst. there was a meeting of the representatives of thirty-five ironworks at Philadelphia, the object of the meeting being to devise measures for a reduction in the make of pig iron, and to improve the condition of the trade generally. Naturally the tenor of the addresses was despondent, and it was admitted that production must be reduced if financial ruin is to be prevented.

Mr. AINEY, of Allentown, said that ruin must be the inevitable result if production was continued. He took a very unfavorable view of the present state of business, and suggested the formation of an "Ironmongers' Exchange," which should have branches in all the producing counties for the purpose of regulating the price of pig iron. There is too much stock, and with only one-third the ordinary demand, except from pipe mills, the large production is unwarranted.

Dr. ROOK, of Louistown, Pa., declared his earnest desire that the meeting would resolve upon a curtailment of production, and settle upon a price for the iron now on hand. If the existing method of operations is pursued, it must certainly result in general and uniform injury.

Mr. ECKERT said that the stock on hand in the Schuylkill Valley had not increased so largely as in other sections, but he thought relief measures should be decided upon.

Mr. C. S. KAUFMAN, of Columbia, stated that the Lower Susquehanna had its share of the "stacks" out, and with a view of ameliorating the pig-iron trade, he believed a combination was advisable. He agreed with the other speakers in their opinions of the despondent condition of business, and concluded by saying that iron producers would be compelled either to "blow out" or "blow up."

Mr. SAMUEL J. REEVES, of Phœnixville, said that, although one of the two furnaces of his company had been blown out, it would have been better if both had stopped, but they continued because their workingmen would suffer by idleness, and the village of Phœnixville would experience considerable disadvantage. He thought pig-iron men were not as badly situated as bar-iron men. One necessity for the trade is the reduction of the prices of coal and transportation, and if this were effected an easier state of affairs would be the result. Of course everybody has been waiting to see whether the price of iron had reached its lowest figure, and no one would pay the present rates if there was any probability of their going lower.

Mr. G. W. WHITAKER deprecated the existence of a coal combination, and Mr. C. S. KAUFMAN thought it would be less expensive to pay the men employed about the furnaces $4 or $5 per week than to run at present.

Mr. BENNETT observed that wages were not so low in Pittsburgh as in the East, for in the western part of the State the pig iron men own the coal they use, and are not subjected to the influence of any such coal combination as exists in this section. The Western producers possessed no advantages in transportation in freights East over Eastern freights West, for in some instances Eastern freight men have sold plate West lower than Western men can make it. Formerly, he bought three-fourths of his iron along the Susquehanna, but now so many furnaces have been established through the West that mills in that locality supply him. Half the furnaces in the West have blown out, and everything has been so contracted that foundry iron has been sold almost as low as forge iron. The bottom price will not, therefore, be reached as long as buyers can go into the market and find producers willing to sell at any figure. He thought that if the producers of pig iron would agree to blow out, within the next sixty days, for four months, foundry iron would in that time sell at $32 in the Lehigh Valley.

Mr. COLEMAN said that this trade in the Mississippi Valley was lost, and was in the hands of the bituminous pig iron men. The only course to be pursued now is to blow out and force the coal men to come down in their exorbitant demands. They would be compelled to do this if the iron men stopped using coal. It would not be long before good coke would be found somewhere else than at Connellsville, whence it could be carried cheaply to the East.

Mr. THOMAS, of Lancaster, said that the arrangement among the coal men should be also effected among the iron trade. He thought it was a mistake to say that the iron men had been imposed upon, but that the policy of preservation should lead them to combine, as the coal-operators had done.

The following resolutions were unanimously adopted:

Resolved, That it must be self-evident to all furnace-owners that the large reduction in the demand for the consumption of pig-iron imperatively demands a corresponding reduction in the amounts produced, and that a continuance of the present over-production cannot fail to result in accomplishing the ruin of the trade.

Resolved, That it is the opinion of this meeting that an earnest effort ought to be made to accomplish a reduction of the make of pig-iron, and that with this in view a committee of seven be appointed to devise some plan to that end.

Resolved, That the Chairman *pro tem*, of the pig-iron branch of the American Iron and Steel Association be requested to call a meeting of all the pig-iron manufacturers of the country at the rooms of the Association on the 10th day of December, 1874, at 11 o'clock, A. M.

Resolved, That a committee in each of the several districts, classified as in the list of iron works, be appointed to wait upon the furnace owners therein, and urge their attendance at the general meeting, and ascertain the views of those not able to attend.

A committee was appointed in compliance with the above resolutions.

Every well informed person in the trade has long seen that a reduction in production is the only way of improving the tone of the iron market, and had the course here indicated been taken six months ago, the trade would to-day be in a much more healthy condition.

We do not, however, believe that, even under this treatment, the price of pig iron will go up to $32 per ton in the Lehigh Valley, this winter; but if production be not curtailed we will see it at $25 or below, before long.

We are glad to see our iron-masters directing their attention to the reduction in the cost of making iron, and hope the coal combination, in arranging the programme for next year, will put the price of furnace coal down to the lowest possible point; but when furnace men talk of getting anthracite at $1 50 per ton, which now costs $3 50 at Mauch Chunk, they do not understand the question. In the Lehigh region, which supplies the majority of Lehigh furnaces with coal, the cost of mining cannot be counted at less than $1 25 per ton; add to this a royalty of 50 cents—in some cases it is even more than this—and, say, 50 cents (30 miles) transportation to Mauch Chunk, where the furnace prices are made; hence, if the price could be brought down to $2 50 per ton at Mauch Chunk, it would probably be the lowest point possible even after a reduction in the present rate of labor at the mines.

The absence from the meeting of most of our largest and most influential iron masters is worthy of note, and leads to a supposition that there is little probability of combined action in any direction by the iron men. The formation of a *pig iron combination*, advocated by a number of speakers, for the purpose of *regulating* prices, is entirely impracticable and undesirable, and being proposed almost in the same breath in which "exorbitant demands" and general oppression of the coal combination were denounced, makes some of the proceedings ludicrously inconsistent.

A few years ago, an iron exchange, or combination, was organized in Philadelphia, with the very object of regulating prices, and almost before the ink in which the members had pledged themselves not to sell below the authorized figures, was dry, some of them were violating the agreement by "underselling." This is, fortunately, the invariable fate of every combination to maintain prices of any article of manufacture at an artificial standard, irrespective of the question of supply and demand, or, at least, this is always the result when the article is produced by a large number of independent manufacturers, and under various conditions of cost. Even the anthracite trade, practically in the hands of six companies, has failed to secure unanimity of action among that small number, and we see one company considerably underselling the others, and it is more than intimated that there is a good deal of "under-cutting" among the five companies who agree to, and *nominally do*, maintain the same prices.

There was one hopeful and notable feature in this last meeting of the pig iron men. There was no repetition of the ridiculous statement made at former meetings, that the re-imposition of that 10 per cent. duty on foreign iron would be a cure for the ills of the iron trade; on the contrary, the only reference to the tariff was the sensible remark that, "it is not foreign but home competition the iron men have now to fear." In thus looking nearer home for the cause of the trouble and its remedy, these gentlemen are more likely to effect a permanent amelioration in the trade. We do not, however, believe it will come through any combination for *regulating* the prices of iron.

CORRESPONDENCE.

Novelties in Ore Dressing.

TO THE EDITOR: SIR—In your issue of October 31, I see an article by Mr. E. G. SPILSBURY, on "Novelties in Concentration Abroad," which contains some extraordinary statements relative to details of the new dressing works of the Rhenish and Nassau Mining Company, at Holzappel-on-the-Lahn, so far as I can understand, flatly contradicting each other. The writer says that the ores dressed in these works consist of a mixture of galena, zinc-blende, iron and copper pyrites, *finely intermixed* in a gangue mass of compact limestone and calcspar. Such a mixture, according to general understanding, has the metalliferous particles from, perhaps, one-eighth of an inch down to almost microscopic sizes, and any attempted concentration with *larger* bodies of ore than one-eighth of an inch, could give no satisfactory results. Nevertheless, Mr. SPILSBURY states that at these works they use but three screens for sizing: one with 3, another with 15, and the last with 30 millimeter meshes, which, in inches, is about one-eighth, five-eighths, and nine-eighths of one inch. The ore passing through these screens

would average probably three-fourths the size of the meshes, or, the largest class would pass cubical bodies of seven-eighths of an inch size.

Now, however correct we may assume the hypothesis advanced by Mr. SPILSBURY to be, it cannot upset the principle, founded on common sense, that a perfect concentration demands a crushing which detaches the metalliferous parts from the rock, and if these metalliferous parts are *fine*, aggregating, say, one-eighth, or even one-quarter of an inch, then ore-particles of nearly an inch in size can certainly never be concentrated. This is plainly impossible. In my opinion, Mr. SPILSBURY may really have observed an anomaly, but the anomaly was this, that "finely mixed ore," in pieces of nearly a cubic inch, could be concentrated at all; and not that a concentration of differently sized material (within the limits given, and consisting of the component parts described), could be effected on the same jig.

The presumption that the doctrine of a close classification is false, is in my opinion a great error. The fact is, that of late years the jigging machines have been so greatly improved, that they now do most of the work heretofore done by other apparatus, often very complicated, and requiring undoubtedly a very perfect sizing. In consequence of these changes it may be quite correct that close classification is not so imperatively necessary as it used to be consid red, (*i. e.*, with metallic ores, such as mentioned by Mr. SPILSBURY,) but with ores whose metalliferous particles are rich, but exhibit small differences in specific gravity, a close sizing will always be safer than the contrary. I am satisfied that, for instance, the silver ores of Reese River district, Nevada, containing much ruby-silver, etc., could never be concentrated in pieces passed through a screen with 30 millimeters, or 1⅛ inch meshes. Such an idea would justly be considered ridiculous.

I feel sorry to see that Mr. SPILSBURY cannot discover a most remarkable difference in the work performed by the modern, variously constructed, automatic jigging machine, and the "*crude*" performance of the old English hand-jig. It does not matter whether the German system has to consider one or more elements in the construction of the machines employed; one thing is certain, that the results of an old Engli h hand jig cannot be compared with the German automatic jig, neither in the perfection of the work done, nor in the cost.

A. THIPPEL.

Calculation of Blast Furnace Gases.

NEW YORK, Nov. 19 1874.

TO THE EDITOR: SIR—In testing the formulæ from GRÜNER for the "Calculation of blast from gas analyses," given on pages 180 and 181, Vol. XXIII., No. 12 (Sept. 19th, 1874), of the ENGINEERING AND MINING JOURNAL, I find an error in formula 2, page 181, which affects the subsequent results, and which occurs, also, in the original. The second member of the equation should be .6889, instead of .679.

Making the required corrections, the following formulæ give the same results, dispense with the auxiliary symbols d, p, and x, and are more compact.

Given:

Weight of pure carbon (in tons) per ton of pig iron $= a$.
" " " " " " " " flux $= b$.
Ratio of carbonic oxide to carbonic acid $\frac{Co^2}{Co} = m$.

Required:

Weight of nitrogen $= 1.0841$
" " dry air $= 1.4097$
" " moist air $= 1.4185$
" Carbonic oxide $= \frac{44(a-b)+m(56a-10.77)-15.6c43}{7m+11}$
" " " acid $= m$ $\frac{77(a+b-.03)}{3(7m+11)}$ (do.)

A. W. HALE.

Ore Mining in New Jersey

WASHINGTON, N. J., Nov. 14, 1874.

TO THE EDITOR—SIR: In accordance with my promise, I herewith give you a few items of news. I have, so far, visited some forty-five mines in this State. Most of them are doing but little, and that at a heavy cost. For instance, there are several, that with a force of one hundred and fifty men, raise but two thousand (2000) tons of ore per month, when they ought to be raising five, at least, with their labor well systematized. But this is not what I wish to bring to your notice; but the fact that we have some men, who can see the errors of their fathers, and are willing and able to take advantage of them.

Most of the ore in this State is shipped to Pennsylvania for reduction. But Col. BOYER, of the Schuylkill Iron Co., in looking over the field, thought one large item of expense, at least, might be stopped in transportation of ore and limestone, and after consultation with some of the leading men in Hackettstown, formed a company, under the name of the Hackettstown Iron and Manufacturing Co., with a capital stock of $200,000, two-thirds of which he carries himself. They then bought twenty acres of land lying between the canal and railroad, about one and a quarter miles from town, three acres of which are covered with a very good limestone deposit, and on that track have erected a furnace with fifteen feet boshes, and fifty-seven feet high, with all the necessary out-buildings, all of which are first-class and so arranged, that, if found desirable next season, another furnace may be added. They have a three hundred horse-power Steeple engine for blowing, and expect to be ready to blow in about the 1st of January.

A better location than this would be hard to find, lying as it does in the center of the iron districts of Warren, Sussex, and Morris Counties. They have three good beds of hematite ore within three-quarters of a mile of their furnace, and a magnetic mine of fair quality within one and one-half miles, and that so located, that were the mine owners so disposed, they could convey their ore by simple gravitation to the furnace door, and at a distance of twelve miles, at Chester, they can get the best ore in the State. So there is no reason why they cannot manufacture iron at from four to five dollars per ton less than the furnaces at Scranton and more distant points. Their Superintendent, Mr. EDWIN HARRIS, I found to be a most pleasant and affable gentleman. He is a thorough machinist, and has been brought up from boyhood in the coal mines of Pennsylvania.

At Pequest, nine miles from here, on the main line of D. L. & W. R.R., and on the banks of the Pequest River, Boston capitalists have bought some mines and erected a furnace, sixteen feet boshes and fifty-eight feet high; it has been in blast about six days. Their mines are about three-quarters of a mile from the furnace up the mountain. They also have good limestone close at hand, and as soon as they get settled propose using the most improved machinery for all purposes, as their Treasurer, Mr. LOOMIS, (who is here from Boston) told me they do not intend to do anything by hand that can be done by machinery. Their Superintendent is a Mr. SPRUGEN, who is a progressive man in every sense.

So much for New Jersey. Next week I shall visit Pennsylvania, where I may find something interesting to n te.

D. H. W.

COAL TRADE REVIEW.

Import Duty on Coal.

Anthracite free. *Bituminous*, per ton of 28 bushels, 80 lb. o the bushel, 75c., gold.

All *slack*, or *culm*, such as will pass through a half-inch screen, per ton of 28 bushels, 80 lb. per bushel, 40c., gold.

Not otherwise provided for, per ton, 40c. gold.

This is the only report published that gives full and accurate returns of the production of our Anthracite mines.

NEW YORK, Nov. 27, 1874.

The Production of Anthracite Coal for the week ending Nov. 21, 1874, was as follows:

Tons of 2240 lb.	WEEK. Tons.	YEAR* Tons.
Wyoming Region.		
Delaware and Hudson Canal Co	49,002	2 133,461
Delaware, Lackawanna and Western R.R	57,368	2,244,825
Pennsylvania Coal Co	25,568	1,196,608
Lehigh Valley R.R	18,271	850,394
Pennsylvania and New York R.R	1,428	57,167
Central Railroad of New Jersey	38,623	1,348,427
Sold at the mines by L. & W. C. Co	693	20,334
	190,953	7,851,116
Lehigh Region.		
Lehigh Valley R.R	65,907	2,891,843
Central Railroad of New Jersey	28,108	1,069,185
Danville, Hazleton & W. B.R.R.,	1,448	36,053
	95,463	3,997,081
Schuylkill Region.		
Philadelphia and Reading R.R	153,531	4,874,749
Shamokin and Lykens Valley	15,111	860,053
	168,642	5,734,802
Sullivan Region.		
Sullivan and Erie R.R	262	31,653
Total of all the regions	455,320	17,614,652

* Year beginning Jan. 1.

The following table does not give the entire production of our bituminous mines, but it is by far the fullest report published.

The Production of Bituminous Coal for the week ending Nov. 21, was as follows:

Tons of 2000 lb., except where otherwise designated.

	Week. Tons.	Year. Tons.
Cumberland Region, Md.		
Tons of 2240 lb	46,102	2,166,563
Barclay Region, Pa.		
Barclay R.R. tons of 2240 lb	5,584	172,568
Broad Top Region, Pa.		
Huntingdon & Broad Top R.R	5,020	204,528
Clearfield, Region, Pa.		
Snow Shoe	1,258	54,192
Tyrone and Clearfield	15,332	559,009
Allegheny Region, Pa.		
Pennsylvania R.R	4,353	184,798
Pittsburgh Region, Pa.		
West Penn. R.R	4,009	175,139
Southwest Penn. R.R	129	7,462
Penn. and Westmoreland gas coal, Pa. R.R.	17,069	787,862
Pennsylvania R.R	6,056	406,105
Kanawha Region, W. Va. to Nov. 14.		
Chesapeake and Ohio R.R	2,950	122,167
Shipments from *Block House Region, N. S.*, to Nov. 7.		
Consigned to the Provinces tons 2240 lb	543	13,745
" " " United States " " "	602	15,082
" " Cuba " " "	....	571
Shipments from *Picton Region, N. S.*, to Nov. 14.		
Consigned to the United States tons 2240 lb.	374	47,530
" " " West Indies " " "	900	12,739
" " Canada " " "	....	98,015
" " Other provinces " " "	1,719	69,647
" " South America " " "	1,432	4,787

The Production of Coke for the week ending Nov. 14.

Tons of 2000 lb.

	Tons.	Year. Tons.
Tyrone and Clearfield	23	754
Allegheny Region	12	118
West Penn. R.R., " " " " "	1,079	39,724
Southwest Penn. R.R " " " " "	10,147	375,001
Gas Coal, Penn. R.R. " " " " "	480	35,760
Pittsburgh Coal, Penn. R.R. " " "	2,439	58,647

The production of Anthracite for the week ending Nov. 21st was as follows: Wyoming Region, 190,953 tons, being 443 tons more than the preceding week. In the Lehigh region, 95,463 tons, or 10,636 tons less than the week before, and in the Schuylkill region, 168,642 tons, being 5,719 tons less than the preceding week.

The total production of Anthracite from all the regions was for the week 455,320 tons, as against 471,506 tons the preceding week, (or a decrease of 16,186 tons), and 380,623 tons for the corresponding week last year. From January 1st to Nov. 21st, there were produced 17,614,652 tons, as against 18,244,468 tons for the same period last year. The figures of last year's production are taken from the Pottsville *Miners' Journal*.

The receipts at Port Richmond were 68,000 tons; shipments, 48,000 tons; and balance on hand 150,000 tons.

Returns from Greenwich, Philadelphia:

	Bituminous.	Gas Coals.
Receipts	4,895	1,637
Shipments	4,242	1,737
On hand	1,852	673

The receipts of coal by the Michigan Southern RR. at Buffalo for the week were 4,917 tons. The shipments by Lake, 9,547 tons.

The Delaware and Hudson Canal Company has in stock at Honesdale 40,000 tons; at Rondout, 74,000; and at Weehawken, 10,000 tons.

The exports of coal from Baltimore this year amount to 63,366 tons, as compared with 62,111 tons in 1873.

The production of Cumberland coal from January 1 to Nov. 21, inclusive, was 2,166,563 tons of 2240 lb., against 2,388,000 tons to the corresponding date in 1873. The production for the week was 46,102 tons, as compared with 60,241 tons for the corresponding week in 1873. This is a total decrease for the week of 14,139 tons as compared with 1873, and for the year, thus far, of 222,437 gross tons.

	week.	year 1874.	year 1873.
The receipts of coal at Coal Port (Trenton)	4,419	258,850	316,561
" " " South Amboy	14,011	564,036	422,336
Shipments at Coal Port (Trenton)	4,850	257,788	317,200
" South Amboy	9,990	572,339	414,646

Production of Bituminous Coal. 1874.

Tons of 2000 lb.	9 months.	Oct.	10 mos.
Blossburgh Region	631,451	85,967	717,418
Barclay Region	375,737	34,503	410,300
Broad-Top Region	174,457	16,009	190,466
Cumberland Region	1,942,783	263,240	2,268,010
Clearfield Region	507,699	89,212	596,911
Alleghany Region	158,854	21,591	180,445
Pittsburgh Region.			
West Penn. RR	146,471	24,759	171,230
Southwest Penn. RR	5,480	1,453	6,933
Gas Coal, Penn. RR	676,814	93,980	770,794
Pittsburgh Coal, Penn. RR	344,735	55,404	400,139
Saw Mill Run RR	68,957	..	..
Cleveland and Pittsburgh RR	226,762	24,094	250,856
Pittsburgh, Cincinnati and St. Louis RR	431,040	65,374	496,414
Erie and Pittsburgh RR	201,563	41,634	243,197
Pittsburgh, Fort Wayne and Chicago RR	159,373	11,399	170,772
Castle Shannon RR	87,901	4 878	92,779
A. Y. & P. R.R.	73	220	293
Pittsburgh and Connellsville RR	296,105	..	..
Monongahela Nav. Co	1,848,656	..	..
Keeling & Co	140,014	..	..
Weltencal & Gormley	9,585	..	..
J. W. Carlin & Co	3,093	724	3,817
St. Louis Region.			
Tenn. Coal & R.R. Co	54,603	8,175	62,778
St. L. A. & T. H. R. R. Belleville Branch	112,799	..	..
B. & S. I. R.R	63,940	..	..
Illinois and St. Louis	1,605	231	1 836
Indiana North and South RR	4,906	945	5,851
Evansville & Crawfordsville RR	10,089	2,166	13,155
Ohio & Mississippi RR	78,994	26,320	105,314
Kanawha Region.			
Chesapeake and Ohio RR	106,609	..	..
Warrior Region, Ala.			
South and North Alabama RR	16,460	..	..
Cahaba Region, Ala.			
South and North Alabama RR	3,085	..	..
S. R. & D. R.R.	10,855	..	..
Chicago B. & Q. R.R	244,289	..	..
B. & M. R.; R.R.	54,754	..	..
	9,201,482		

The demand for anthracite coal continues without material change. The closing of the season contracts, with the approach of the closing of navigation, creates an activity with certain of the companies. The Pennsylvania Coal Company has made a reduction in its rates of from 5c. to 25c. per ton for December delivery on its regular circular prices of this month, and has issued a circular to its contractors only, offering to sell them given quantities at 30c. per ton less. This has an unsettling effect upon trade, particularly as the demand is very light. If trade were brisk, the small quantity that this company might place on the market would have no material effect, but in connection with the underselling by the contractors of other companies, it has a very serious effect upon those who are determined to sustain the established prices.

In the Scranton sale of the 25th inst. the following prices were obtained; we compare them with the programme prices for November, which, it is expected, will be maintained by the Combination through December:

	Tons.	Average price.	Programme price, Nov.
Steamer	6,000	$5 50	$5 65
Broken	12,000	5 24	5 75
Egg	6,000	5 70	5 90
Stove	20,000	6 15	6 35
Chestnut	6,000	4 90	5 35
	50,000	$5 65	$5 95

There is a decline from the programme prices of 15 cents per ton on steamer, 51 cents on broken, 20 cents on egg, 20 cents on stove, 45 cents on chestnut, or an average decline of 29 cents. How do the Season Contractors like this way of keeping up the Programme?

The representatives of the combined companies, upon reviewing the working of their programme of the past year, will undoubtedly be able to make some improvements in their next, which may be able to keep Mr. HOTT by their side as has been the case during the summer, and prevent an almost general suspension of business during the winter months, as looks probable now. There is certainly room for improvement, as shown by some of the practical workings, and there is no doubt but that an attempt will be made to remedy the errors. We have before made an appeal for cheaper fuel for the iron manufacturers. Yesterday, in convention at Philadelphia, they made the same appeal for themselves, but we think they look to prices which they cannot expect to attain very soon, at all events. It is very wrong that the laborers at furnaces and rolling mills should be reduced to barely a subsistence, while the coal miners are paid wages unreasonably high. In this particular the miners should stand their share of the reductions, especially as the iron interest does more than any other to furnish them with steady work. If one branch of industry with a surplus of labor can reduce wages there is no reason why another cannot. It is a plainly seen necessity, and when accomplished, it would be unfair for the coal companies to reap the sole benefit by keeping up the prices of coal. A corresponding reduction in the price of coal would tend to an increased consumption, which would eventually give steady employment to labor, and, by industry, its remuneration would be ample.

Freights to the East remain about as heretofore quoted, with perhaps a shade of weakness.

In bituminous coal there is but little doing. We note the sales of 2,000 tons of Cumberland coal for shipment to Havanna on private terms, for which vessels were chartered at $2 currency a ton; also 800 tons Cumberland coal delivered in Providence at $5 50, and 250 tons Canne ton Cannel at $12 50 here. Freights from Baltimore and Georgetown are a bit le weak, with abundance of vessels and declining shipments. The stock of coal at Baltimore is very light—between 6,000 and 7,000 tons—while on the river it is on the increase.

The following are extracts fro n foreign correspondence:

"PERNAMBUCO, Oct. 31.

"The only sales effected lately have been the cargo per *Britress* from Yroou at 18$000 (about $9) per ton, less 5 per cent. discount. We quote Cardiff 23$000 nominally."

"BARBADOES, Nov. 9.

"The *River Queen* arrived on the 31st ult, and her cargo of coals (Nova Scotia) was placed at $7 54 per ton deliverable at Guadaloupe, less 2½ per cent. The arrivals of coal have been numerous, and the price has consequently fallen. To-day we have two cargoes unsold; the *Adriatic*, from Pictou, 660 tons; and *Five Brothers*, from Cape Breton, 560 tons, and fear we will have to accept a very low figure."

"BAHIA, Oct. 29.

"The arrivals of coals during the month do not exceed about 2,300 tons to order, including a cargo per the *Charles E. Scammel*, from Lingan to our Gas Company."

Wholesale Prices of Anthracite Coal for Dec. f.o.b., at the Tide Water Shipping Ports per ton of 2240 lb.

	Lump.	Steamer.	Grate.	Egg.	Stove.	Chestnut.
Wyoming Coals.						
†Lackawanna and Scranton at Elizabethport & Hoboken	5 55	5 65	5 75	5 90	6 40	5 35
*Pittston at Weehawken	4 73	4 73¼	85	4 95	5 35	4 50
*Wilkesbarre at Port Johnston	5 55	5 65	5 75	5 90	6 40	5 35
Plymouth, R. A	....	....	5 75	5 90	6 50	5 35
Susque. Coal Co. at Amboy W.A.	5 55	5 65	5 75	5 90	6 50	5 35
Kingston at Hoboken	5 55	5 65	5 75	5 90	6 40	5 35
***Lehigh Coals.**						
Old Company at Port Johnston	6 50	....	6 45	6 45	6 60	5 65
Old Company's Room Run "	6 00	....	6 00	6 00	6 35	5 35
Sugar Loaf at "	6 00	....	6 45	6 45	6 60	5 65
Lehigh Coal Exchange "	6 35	....	6 30	6 30	6 45	5 50
Honey Brook at Elizabethport	6 35	....	6 30	6 30	6 45	5 50
Spring Mt. C. Co. at Hoboken	6 35	....	6 30	6 30	6 45	5 50
Beaver Meadow at South Amboy	6 35	....	6 30	6 30	6 45	5 50
Schuylkill Coals at Port Richmond.						
Schuylkill white ash	5 05	5 15	5 25	5 40	5 90	4 45
Schuylkill red ash	....	....	5 40	5 50	5 95	4 55
Shamokin white and red ash	....	....	....	5 40	5 90	4 45
N. Franklin	....	....	5 85	5 85	5 90	4 45
Lorberry	....	....	6 20	6 20	6 20	4 80
Lykens Valley	....	....	....	6 85	6 85	5 40

* Small or Pea coal is quoted by these Companies at $1 35 per ton less than Chestnut.

† f.o. b. in New York Harbor.

Fittston coal is delivered to carts in New York or Brooklyn at an additional charge of 40 cents per ton to the above quotations.

	Per ton.
Freight from Hoboken and Weehawken to New York	40c.
" " Elizabethport & Port Johnston to New York	40c.
" " South Amboy to New York	45c.
" " Port Richmond, "Phila." to N. Y. alongside	95c.
" " Rondout to New York by boat or barges of the D. & H. Canal Co. "delivered"	50c.

Wholesale Prices of Bituminous Coal.

Domestic Gas Coals.

Per ton of 2240 lb.	Shipping Ports.	At the Alongside in New York.
Westmoreland and Penn, at Greenwich, Philadelphia	$6 25	$7 65
" " at S. Amboy	7 00	..
Red Bank Cannel Pa., at Phil	8 50	8 50
" " at S. Amboy	8 00	....
" Orrel, "	7 00	7 65
" " at Philadelphia	6 25	....
Youghiogheny, Waverly Co, at Baltimore	6 00	7 65
Despard, West Va. "	5 60	7 40
Murphy Run, W. Va. at Baltimore	5 60	7 40
Fairmount, W. Va "	5 60	7 40
Newburgh Orrel, Md. "	5 50	7 40
Cannelton Cannel, W. Va., at Richmond	11 00	12 80
" Splint, " "	5 25	7 50
Paytona Cannel, " "	....	12 50
Sterling " Ohio	....	12 00
Straitsville, " At Sandusky, O	3 65	11 50

Foreign Gas Coals.

	Sterling.	Am. cur'ey.
Newcastle, at Newcastle-on-Tyne	12/@13/6	7 00@ 8 00
Liverpool House Orrel, at Liverpool	29/	13 00
Ince Hall Cannel "	32/	18 00
" Gas Cannel "	40/	15 00
Scotch Gas Cannel, at Glasgow, nominal	28/	9 50
	Gold.	
Block House, at Cow Bay, N.S.	2 25	6 50
Caledonia, at Port Caledonia	1 87½	5 70
Glace Bay, at Glace Bay	2 00	5 50
Lingan, at Lingan Bay	2 25	6 50
Sydney, International and Reserve mines, at Sydney	2 25	5 75
Pictou, Albion and Vale mines, at Pictou	2 50	6 50

Steam and House Coals.

Broad Top, at the mine, $1 25; at Port Richmond, Phil	4 75@5 00	6 00@6 25
Cumberland, at Georgetown and Alexandria, Va	4 30@4 40	5 75@6 00
Cumber and at Baltimore*	4 60@4 75	6 25@6 50
Clearfield, "Derby," "Kitanning" and "Sterling," at the mines, $1 25; at Greenwich, Phil	4 75@5 00	6 25
James River, carbonite, at Richmond, Va	6 75	9 00
" bituminous, "	4 00	6 25
*Schooner freights from Baltimore to New York are		$1 25
Barge " " " " "		1 70

Retail Prices in New York.

Anthracite.

Per 2000 lb.	Grate and Egg.	Stove.	Chestnut.
Pittston coal, in yard	$6 00	$6 20	$5 40
Lackawanna Coal delivered	7 60	7 85	7 10
Wilkes-Barre, delivered	7 60	7 85	7 10
Lehigh & Locust Mountain, del'd	8 00	8 00	7 50
Schuylkill Red Ash del'd	8 25		

The cost of delivering Pittston coal ranges from 40 cents to $1 per ton, according to distance from the yard.

Bituminous.

Liverpool House Orrel, delivered, per ton of 2000 lb	$23 00
Liverpool House Cannel " " "	25 00
American Cannel " " "	16 00
American Orrel " " "	16 00
Straitsville Cannel " " "	16 00
Carbonite " " "	12 00
Cumberland " " "	9 00

Coal Trade of Philadelphia.

PHILADELPHIA, Nov. 24, 1874.

Shipments in the Schuylkill Region are daily contracting; but for the anxiety of the P. & R. RR. Co to receive coal this week, the last of their fiscal year, in order to make a better show in the yearly Report, receipts at Port Richmond would have been ere this reduced much more rapidly, and probably stopped. The Company acknowledged, at the end of last week, over 150,000 tons of stock at Port Richmond. Cars at the mines have become scarcer suddenly, and the pool operators have been notified to send no more coal to the Coal and Iron Company at Port Richmond, after November 30th. How to stop the receipts of those who have enough sales and contracts to keep their collieries running, before some difficulty is created with the men on the wages question, is bothering considerably the parties who have made it their business, for some time past, to regulate the business of everybody else. The wages being settled to the last day of December, it requires some new kind of dodge to bring about a suspension until then. As a last resort, the Reading Railroad Company can always be depended upon; they can come to the rescue with some particular job, kept in reserve for the occasion—but as it involves stopping the transportation of coal without interfering with the transportation of passengers or merchandize, the thing has become "too thin," and something new must be invented.

The iron men had a preliminary meeting here, this week, and appointed a committee, to report at an adjourned meeting, to be held December 10th, what they think should be done to relieve them. Lower rates of transportation and for fuel have, very properly, been suggested as one of the necessary measures.

There are no fresh orders, and Captains of large vessels, anxious to leave this port, offer to carry coal at very low figures; $1.40 to Boston has been named by some of them.

Bituminous Coal, Wholesale.

Penn. and Westmoreland (Gas), f.o.b., Greenwich	6 25
Broad Top, (according to destination) f.o.b., Port Richmond	4 75@5 00
Clearfield f.o.b. at Greenwich, according to destination	4 75@5 00

Bituminous, Retail.

60 in yard, per 2240 lb., cartage added.

Anthracite, Retail.

Egg, per 2240 lb., $6 20; Stove, $6 25; Chestnut, $5 10; delivery costs, 75 cents extra.

Baltimore, Md. Nov. 25, 1874.

Reported by our Special Correspondent.

We note a further decline in freights. Rates are now $1 20 to Hoboken; $1 30 to New York; $1 45 to Sound ports, and $1 50 to $1 60 to Boston.

We note sale of 2,000 tons Cumberland for shipment to Cuba, terms of sale private—vessels were taken to fill this order at $2 currency—consigned to Havana.

Receipts at Locust Point are very light. The gas coal trade is about over for the season.

WHOLESALE PRICES PER 2240 lb.

ANTHRACITE.

Wilkes-Barre, "Lee," or "Diamond,"	By cargoes.	In cars.
Lump, steamboat	$5 15	$5 60
Broken	5 50	5 75
Egg	5 87	6 15
Stove	6 07	6 35
Pittston and Plymouth.		
Lump and steamboat	....	5 50
Broken	....	5 70
Egg	....	6 05
Stove	....	6 25
"Boston," freeburning white ash	....	5 50
Egg	5 87	5 70
Stove	6 07	6 05

Shamokin, (red or white ash)	....	6 25
Egg	5 82	6 05
Stove	5 92	6 15
Lykens Valley, red ash, egg and stove	6 02	6 55

From wharf or yard, wholesale, 50@75c. additional.
By retail, all kinds and sizes, per 2,240 lb, $7@8 25.

BITUMINOUS.

George's Creek and Cumberland f. o. b. at Locust Point for cargoes	4 60	4 75
West Va. Gas Coal f. o. b. at Locust Point	5 50	....
Kanawha Canel, coarse	13 00	....
Tyrone	7 25	....
Ritchie Mineral of West Virginia	1 00	....

Boston. Nov. 25, 1874.

Reported by our special correspondent.

CARGO PRICES TO TRADE.

Lingan coal	$ 5 75	Westmoreland, and Penn.	7 75
Caledonia	5 00	Waverly Co. Youghiogh'y	7 75
Pictou	6 15	Cannelton Cannel	13 50
Block House	5 60	Cumberland	5 70@ 6 10
Red Bank Cannel	10 00	Anthracite,	6 50@ 7 25
Glace Bay	5 00	" Retail	7 50@ 8 00
Sydney	7 00		

Buffalo, N. Y. Nov. 25, 1874.

Reported by our Special Correspondent.

Freights to Chicago $1 12½; Milwaukee, $1 per ton. Vessels rather scarce. Trade very dull. Prices f.o.b. here

Per ton of 2000 lb.

	Slack.	Nut & Slack.	Nut.	Lump
Connelsville coke				6 50
Sterling cannel				6 00
Red Bank				5 75
Youghiogheny coal for gas				5 50
Briar Hill coal		3 25		5 00
Fairmount "		3 25	3 75	4 25
Catfish "		3 25	3 75	4 50
Stoneboro "	2 75		3 75	

Briar Hill coal, and Stirling and Red Bank cannels retail at $7 50; all other coals $1 per ton above wholesale prices.
Anthracite f. o. b. vessel.

Grate	6 70	Stove	7 15
Egg	6 70	Chestnut	6 65

Retail prices delivered and screened, $1 per ton additional.

Chicago, Ill. Nov. 24, 1874.

Specially reported by Messrs. RENO & LITTLE, Coal Merchants.

No change in prices of coal.

Retail prices per ton of 2000 lb. delivered to buyer.

		BITUMINOUS.	
Lehigh Lump	$10 75	Briar Hill and Erie	7 50@ ....
Lehigh prepared and car load lots	10 25	Walnut Hill (W. Va.)	6 50@ ....
Lackawanna, Wilkes-Barre and Pittston,*		Midway (West Va.)	6 50@ ....
Grate, egg, and chestnut	9 50	Cannel	8 00@ 9 00
Stove or range	10 00	Blossburg	8 00
		Indiana Block	6 00
		Hocking "Brooks"	6 00
		Wilmington and Illinois	5 00

*75 cents off these prices for car load lots to country dealers and manufacturers.

Cleveland, O. Nov. 5, 1874.

Reported by our Special Correspondent.

Per ton of 2000 lb.

Youghiogheny, l'p, f.o.b.	$4 65	Straitsville, f.o.b.	$3 40
Youghiogheny, nut	3 60	Columbiana "	3 40
Briar Hill, (Church Hill)	4 25	Strip Vein "	3 65
" " (Brookfield)	4 10	Mountain Blossburg	
Massilon, according to quality	$3 40 to 3 65	(blacksmith)., f.o.b.	5 75
Hocking Valley, f.o.b.	3 50	Darlington and Sterling Cannel, f.o.b.	4 50
Anthracite, Lackawanna on cars, Egg			$6 85
" " " " Stove			7 30
" " " " Chestnut			6 90
Youghiogheny Coke, " " " here			5 50
Connellsville " " " "			5 75

Cincinnati, O. Nov. 24, 1874.

Specially reported by Messrs. A. BUCHANAN & Co., wholesale and retail dealers in coal and coke.

Per ton of 2000 lb.

	Bush.	Ton.
Youghiogheny, or Pittsburgh, afloat	13 c.	$2 86
Pomeroy coal	8 c.	
Cannel coal	18c.	4 68
Semi Cannel	11 c.	2 60

The following are retail prices delivered:

Youghiogheny	18 c. $3 90@$
Pomeroy	14 c.
Cannel	24 c. —
Kanawha Semi Cannel	15c. —
Anthracite	$9 50@11 00
Foundry coke	12c. —
Soft coke	10c. —

Detroit, Mich. Nov. 24, 1874.

Specially reported by Messrs. ROBINSON & KEYS, dealers in all kinds of coal.

The change from warm to cold weather has had a beneficial effect on the coal trade; orders are coming in more freely. Prices firm at last quotations, viz.:

Per ton of 2000 lb.

Lehigh Lump, per ton.	$10 50	Blossburg	8 50
Lehigh " prep. sizes.	10 00	Briar Hill	7 50
Wilkes-Barre, Grate and Egg	9 00	Willow Bank	7 00
Wilkes-Barre, Stove and Nut	9 50	Erie	7 50
		Massillon	7 00

Erie, Pa. Nov. 25, 1874.

Reported by our Special Correspondent.

Wholesale, per ton of 2,000 lb.
Bituminous f.o.b.

ar Hill lump	$4 00	Beaver lump	$4 00

Indianapolis, Ind. Nov. 16, 1874.

Specially reported by Messrs. H. McCOY & Co.

Per ton of 2000 lb.

BITUMINOUS.

Wholesale on board cars in city.

Best Block coal	$3 10	Indiana cannel	6 75
Best Highland	2 50	Hocking Valley	3 25
Block Nut, per car	20 00	Youghiogheny	6 00
Highland " "	18 00	Blossburg (smithing)	7 30
Block slack, per car load	15 00	Piedmont "	7 75
Peytona, cannel per ton	8 75	Gas coke, ... per bushel	10c

ANTHRACITE (Lackawanna).

Grate	$8 70	Chestnut	8 60
Egg	8 70	Stove	8 85

Retail, per bushel of 70 lb.

Block	16c.	Peytonia Cannel	32c.
Highland	14	Indiana "	26
Highland Nut, dom. use	12	Youghiogheny	26
Block " "	12	Blossburg	27
Slack, steam, "	8	Piedmont	30
Block & Highl'd Mt. steam	9		

ANTHRACITE.

	per ton.		per ton.
Grate	$11 00	Stove	$11 00
Egg	11 00	Chestnut	11 00

Louisville, Ky. Nov. 24, 1874.

Specially reported by Messrs. BYRNE & SPEED.

Please report our market the same as last week. About 3,000,000 bushels of coal will leave Pittsburgh on this rise, but so little of it will reach here, we do not expect any change in prices. Daily sales are still light.

Pittsburgh, per load of 1900 lb	$4 00
Pomeroy	
Buckeye Cannel	5 50
Peytona Cannel	6 00
Nut and Slack	2 75
Kentucky lump, per load	
" nut, "	
" Slack "	
City-made Coke, per bushel	10c
Kentucky on cars at wholesale, per bush.	15c
Anthracite, per ton	$10 to $10 50

Milwaukee, Wis. Nov. 23, 1874.

Specially reported by Messrs. R. P. ELMORE & Co.

Retail prices per ton of 2000 lb.

Lehigh Lump	$10 00	Briar Hill, select	$8 50
Lehigh Prepared	10 50	Blossburgh	8 00
Lackawanna	9 50	Pittsburgh	7 50

New Orleans, La. Nov. 21, 1874.

Market very dull, with little or no demand.

Pittsburgh coal, retail, per bbl	75c.
" wholesale	45c.
" to steamboats, per box	60c.
" to manufacturers, per bbl	65c.
" shipments per hhd	$7 00
Anthracite, retail, per ton	$12 50
" wholesale per ton	$8 00
Spadra (Arkansas) coal, retail, per bbl	75c.
Mt. Carbon, wholesale, per bbl	45c.
" " retail per bbl	65c.
Virginia Cannel, per bbl	90c.
Scotch Cannel, per bbl	1 00

Pittsburgh, Pa. Nov. 24, 1874.

Reported by our Special Correspondent.

I have nothing new to report, trade remaining very dull and prices unchanged.

Per ton of 2000 lb. and Bushel of 76 lb.

	per ton.		per ton
Youghiogheny coal	$2 00	Pittsburgh retail delivered per bushel	9c@10c
" coke	2 50		
Connellsville coal	2 10	Anth'cite on cars Lehigh	$7 75
" coke	2 75	" " Wilkes-Barre	6 75
Pittsburgh coal	1 85		

Twenty-five to fifty cents per ton additional for delivery.

San Francisco.

From the *Commercial Herald*, November 12.

The ships *Three Brothers* and *Dauntless*, from New York, add upward of 1,000 tons Anthracite to our store. Imports of Scotch and English have been greatly diminished by the loss of the seven cargoes heretofore reported, the last vessels being the *Mogul* and *Centaur*, from Liverpool. By reason of the steadily increasing consumption of Scotch and English coals, prices seem to be hardening, with a light stock. Imports from New South Wales continue upon a liberal scale. Arrivals during the week embrace several cargoes of Wallsend, sold before or since arrival within the range of $10 50@$11, and this may now be considered the spot price, although one cargo is said to have been placed, some days since, as high as $11 25. We note the following receipts: *Berbice*, from Greenock, with 1,090 tons; *Wellington*, 894 tons from Nanaimo; *Trevelyan*, 1,434 tons from Newcastle, N. S. W.; *British King*, 2,080 tons same, etc.; *Ericsson*, 1,505 tons from Liverpool. Supplies of Wellington from British Columbia are steadily increasing, besides growing in public favor, taking high rank with that of West Hartley, and may be quoted at $10 50@11 ex ship. Bellingham Bay and Coos Bay supplies continue in order, quotable at $8 50@$10 50 respectively. The California Mt. Diablo mines, Black Diamond, and others, continue to produce largely of Steam Coals, finding ready sale at $8 25@$6 25 per ton for coarse and fine. The market is well and abundantly supplied with Anthracite and Cumberland at unchanged rates. The *Shooting Star*, from Nanaimo, brought 1,000 tons. We note an offer of $11 12½ for a cargo of Australian to arrive. Receipts embrace the *Roderick Dhu's* cargo of 2,327 tons, and the *Mercmus* with 2,308 tons, both from N. S. W.

St. Louis, Mo. Nov. 23, 1874.

Specially Reported by the COLLINSVILLE COAL AND MINING COMPANY.

ANTHRACITE.

Per ton of 2000 lb.

	City delivery.
Lehigh Lump	$13 50
Lackawanna and Wilkesbarre	12 50
Semi Anthracite	9 50

BITUMINOUS.

Per ton of 2000 lb.

	E. St. Louis.	City delivery
Washington Indiana—smithing	$4 00	$4 87
O'Fallon, Ills	2 00	3 00
Collinsville and Belleville, Ills	1 75	2 75
Indiana Cannel	6 00	7 00
Missouri Cannel	....	5 00

Retail, 25c. per ton additional.

Montreal. Nov. 23, 1874.

Reported by our Special Correspondent.

Per ton of 2,240 lb.

Scotch Steam	$4 50@4 75	Cape Breton Steam	$4 00
Pictou "	4 25	Newcastle Smiths	5 50

Anthracite at retail, 2,000 lb., delivered, less 5 per cent.

Egg	$8 00	Nut	$8 00
Stove	8 50	Chestnut	7 75

Toledo, Ohio. Nov. 23, 1874.

Per ton of 2000 lb,
Specially reported by Messrs. GOSLINE & BARBOUR.

Retail.		Retail.
Wilkes-Barre and Scranton,	BITUMINOUS.	
Large and Small Egg, $8 00	Blossb'g and Cumberl'd,	$8 00
Stove 8 25	Massillon Lump	6 00
Chestnut 8 00	Briar Hill	7 00
Lehigh Lump 10 00	Straitsville	3 75
	Hocking Valley	4 00

Halifax, N. S. Nov. 23, 1874.

Reported by our Special Correspondent.

Prices per ton of 2240 lb. in gold.

Sydney (old mines)	$4 50	Little Glace Bay	3
Gowrie	3 50	Blockhouse	
Victoria	3 50	Albion (at Railroad)	

Toronto, Ont. Nov. 23, 1874.

Reported by our Special Correspondent.

ANTHRACITE.

	per ton.		per ton.
Broken	$7 65	Chestnut	$7 65
Egg	7 65	Lehigh	9 00
Stove	8 15		

BITUMINOUS.

Blossburgh	7 50	Screenings	5 00
Briar Hill	7 00	Soft Nut	5 50

Rates of Transportation on Anthracite Coal to Tide Points.

**From Mauch Chunk to New York* "towing limits," via Morris Canal $2 71

**From Mauch Chunk to Jersey City* "for reshipment," via Lehigh Valley R. R. 2 51

‖*From Phillipsburg to Hoboken* "for shipment," via Delaware, Lackawanna & Western R R. 1 38

† *From Penn Haven to Elizabethport, Port Johnston and Hoboken*, via Central railroad of New Jersey 2 47

‡ *From Mauch Chunk to Elizabethport, Port Johnston, Hoboken and South Amboy*, via Lehigh Valley R. R. 2 31

From Port Delaware to New York and Jers y City, via Morris Canal 1 74

From Mauch Chunk to Philadelphia via N. P. R. R. 1.75

From Schuylkill Haven to Philadelphia, via canal. Freight 65c., tolls $1 10 1 75

From Tamaqua to Port Richmond "for shipment," via P. & R. R. R. 2 07

From Schuylkill Haven to New York, via canal 2 72

From Upper Lehigh to Jersey City, via Central R. R. of N. J. 3 24

From Tamaqua to Philadelphia, via Phil. & Read. R. R. main line 2 17

On canal coal at Jersey City an additional charge of 20 cents per ton will be made for transferring coal from boat to boat, and thirty cents per ton for placing the same on the wharves and re-shipping.

The rate on coal for way-points on the New Jersey railroads will be $1 15 per ton from Mauch Chunk to Phillipsburg.

‖ 42 cents additional to this rate is added on coal shipped for consumption.

† The rate from Phillipsburg to these points is $1 09 per ton less. This rate does not include wharfage or shipping expenses at tide ports.

‡ From Penn Haven to these points it is 16 cents additional, and from Phillipsburg the rate is 93 cents less.

* At a recent meeting of the N. Y. and Lehigh Coal Exchange, it was decided to make the price of coal at this point for *way trade* the same, whether shipped via canal or railroad.

Freights on Bituminous Coals from the Mines to Tide-Water Shipping Ports.

From the Mines to Cumberland and State Line (say an average of 20 miles) the charge is 3 cents per ton of 2240 lb. per mile.

From State Line to Amboy, (346 miles) $4 00 per ton of 2000 lb. On coal shipped beyond that point there is a drawback of 50 cents per net ton.

From Cumberland to Baltimore, (178 miles) $2 58 per ton of 2240 lb., or $2 30 per net ton, and 4 cents per gross ton for use of cars.

From Cumberland to Georgetown, (152 miles) by canal, $1 76 per ton of 2240 lb. *To Alexandria, Va.*, 11 cents per ton more.

From the Mines to Piedmont, (from 4 to 10 miles) 5 cents per ton of 2240 lb. per mile on distances less than 5 miles, and 4 cents per ton per mile on distances not over 10 miles.

From Piedmont to Baltimore, (206 miles) $2 97 per ton of 2240 lb., or $2 65 per net ton.

From any point in the Kanawha Valley to the James River wharves below Richmond (say 350 miles) by C. and O. R. R., including terminal charges, per ton of 2000 lb., for Cannel coal, $5 35. Subject to rebate on large quantities.

Do., do., for Semi Cannel or Splint, $3 65.

From Hawks Nest to Richmond (say 300 miles) the freight on Bituminous or Splint is $3 25 per ton of 2000 lb; on Cannelite it is $5 00.

From Irwin to W. Phila. (say 332 miles) per P. R. R. Penn. Westmoreland gas coal, per ton of 2000 lb.....$5 00
From Osceola to W. Phila. (say 248 miles) per T. & C. R.R. per ton bituminous coal of 2000 lb..... 3 55
From Fairmount and Clarksburg to Baltimore (say 300 miles) via B. & O. R. R. including loading, per 2000 lb..... 5 20
On through coal after deducting drawback..... 4 15
From Richmond, Va., to New York, 392 miles per 2000 lb. 2 10
" " " Boston about 650 " "..... 3 00
" " " Philadelphia 292 miles "..... 1 75
From the Mines to Richmond via James River and Kanawha Canal, 15 miles..... 52
Pictou to North Side Cuba..... at $3 00 gold
Cape Breton to Barbadoes..... 3 50 "
" " " with privilege of a second port.. 3 75 "
" " Porto Rico..... 4 00 "
" " North Side Cuba..... 3 00 "

From the Provinces to South America.—We have closed 450 tons, Pictou to Bahia, at $5 75, and can use another medium vessel at about the same rate.

Freights.

We note a slight decline in freights from Elizabethport and Port Johnston to Eastern points, and quote accordingly the rate to Boston at $1 15, while large vessels are offered at $1 10, with a slight demand. A 250 ton vessel has been engaged for $1 40 from Philadelphia to Fall River. No doubt lower figures would be accepted. We quote the rate to Boston from Philadelphia at $1 60@$1 65. Baltimore and Georgetown rates are nominally unchanged, and we accordingly quote Sound freights as in our last, namely, $1 40.

Messrs. BIRD, PERKINS & JOB, in their circular, dated 20th inst., say as follows relative to coal freights :

From the Provinces to the States.—We have but little change to note in this business ; the nominal freight to New York from Sydney, Glace Bay and Caledonia, may be quoted at $2 ; while from Cow Bay we might fix one or two vessels at a small advance on this rate. The continued mild weather in the Provinces, and advancing freights foreign from New York, make even this low rate remunerative.

From the Provinces to the West Indies and South America — The transactions in this direction have been light, although freights are lower than ever before known. From causes already noted, the amount of business between the Provincial coal ports and the West Indies will be very much lighter than for the past two years. Our more recent charters have been the American schooner *Nellie Bowers*, 450 tons capacity, Pictou to Cardenas, $3 gold ; British brig *G. J. Troop*, 500 tons capacity, Cow Bay to St. Jago, $3 50 gold.

In addition to these, we note some further cargoes laden at Pictou on ship account for markets in the West Indies. We also note charter of two vessels, 400 tons each, Sydney to Havana, at $3 gold, and one to Demarara, private terms.

THE CANALS.

Pursuant to a resolution adopted by the Board of Canal Commissioners, navigation upon the canals of this State will be closed for the season of 1874 on the 5th day of December next, except on the lateral canals, which will be closed at the direction of the Commissioners in charge.

REVIEW OF THE BRITISH COAL AND IRON TRADES.

Compiled from our exchanges bearing date to November 14, 1874.

There is a rather better feeling in the iron trade of the *North of England*, due in some degree to the publication of statistics showing the stock of iron on hand to be little more than a week's make.

There are one hundred and fifty-two furnaces erected in the North of England, 124 of which are blowing; while, at the end of October last year, only 137 were erected, and 130 in operation. There are 12 furnaces in course of construction. The production during October amounted to 171,471 tons, 1,652 tons less than during the same month last year. The stocks amount to 59,298 tons, and, when compared with February, (the month for which the last returns were issued), they exhibit a decrease of 41,901 tons.

On 'Change at Middlesbrough, yesterday, the enquiry for pig iron was better than on the previous Tuesday, and prices were very firm—No. 1 at 69/ 6d. to 70/; No. 3 at 65/; No. 4 (foundry) at 61/, and forge at 57/ 6d. per ton, nett cash, and delivery during the present year. Some slight concessions were made where the iron was not required till next year, and there was a good number of such orders to be given out. The rail makers still experience great difficulty in meeting with contracts which will afford them a profit in working. An extensive order for rails has just been taken in the district on account of the colonies, but the price is not more than £7 12/ 6d. at works, and many of the rail makers are now refusing to do any work under £8. The coal trade is more active, and the prices of best coke have improved.

In the West Coast, or Barrow, district, the iron trade is not satisfactory, and about one-third of the blast-furnaces are completely idle. For Bessemer iron of all kinds the enquiry is large. For bars and plates there is only a poor request, and the works are only moderately well supplied.

The settlement of the dispute among the miners in the *West Riding* is likely to have an important influence upon the iron trade, for already there is more activity in the district, and, taken altogether, the condition of affairs is not nearly so unsatisfactory as it was a short time ago. Merchant iron is in fair demand, and orders for railway material are more numerous. The plate mills of Sheffield are turning out large quantities of armor, ship, and boiler plates, for which the demand has not been bad at any time. The Bessemer steel trade is brisk. The nominal prices of coke are 15/ per ton lower now than at the beginning of the year.

The *South Staffordshire* iron trade is less brisk than at the date of our last, the close of the shipping season having affected the demand. It appears, however, that the works are nearly all well employed, and, except for the commonest qualities of iron, prices are maintained. Bars range from £9 10/ for common unmarked to £11 12/ 6d., for Earl Dudley's best. No material change is likely to take place this month. The pig iron market is fairly brisk, and all the iron that is produced in the district by the 74 furnaces blowing is readily bought up, as well as the supplies from Cleveland, North Staffordshire, the Forest of Dean, and elsewhere. It is estimated that about 8,800 tons of pig iron are now produced in this district weekly. Household coals are in better request.

The South Wales district is disturbed by wages' agitations, and it seems that the men will have only two courses open to them—viz., to accept the reduction or to do no work at all. The employers affirm that it is ruinous to go on in the present way, as no profit can be got by carrying on the works when prices are so low. The coal trade is steady, and the demand for steam and household qualities is increasing. The contract rules are causing some opposition among the miners, and they decline to accept them as they are. They say the little liberty they now enjoy would be swept away if they agreed to them.

Scotland.—Glasgow.—Iron market firm, 85/ 9d. prompt cash paid, buyers over, sellers not very anxious to operate.

Coal.—There is no change in the condition of the coal trade. The supplies continue to be very abundant, and the enquiries for shipping coals are not as numerous as they were recently. The following are the quotations free on board at Glasgow Harbor cranes :—Wishaw Main coal, 8/ 3d. to 9/ 6d. per ton ; house coal, 9/ 6d. to 13/ ; splint coal, 9/ to 10/ 6d. : steam coal, 10/ 6d. to 13/, smithy coal, 17/. Notwithstanding the approach of coal weather, stocks of all descriptions of coal are increasing at the pitheads. There are still appearances of lower prices being quoted this year, and it is even thought in some quarters that miners' wages will again be reduced before the end of the year. In one district, however, miners who are accustomed to work thin seams are advertised for at wages ranging from 5/ 6d. to 6/ 6d. per day.

IRON MARKET REVIEW.

Import Duties.

The following are the duties in Gold on Iron :

Flat Iron, not less than 1, nor more than 6 inches wide, nor less than ¼, nor more than 2 inches thick. *Round Iron*, not less than ¼, nor more than 2 inches in diameter, and *Square Iron*, not less than ¼, nor more than 2 inches square ₱ lb. 9-10 of 1c.
Flat Round or Square Iron, of larger or smaller sizes than the above mentioned, per lb.....1 35-1000

Provided, that all iron in slabs, blooms, loops, or other forms, less finished than bars, and more advanced than pig iron, except castings, shall pay the same as iron in bars.

Provided, that none of the above iron shall pay less than 31½ per cent.

Railroad Iron.....63c. per 100 lb.
Boiler plates, or other plate iron not less than 3-16 of an inch thick, per lb..... 1 35-100 c.
Scrap castings per ton..... $5 40
" *wrought* " " 7 00
Pig iron per ton..... 6 30
Iron ore 10 per cent. *ad valorem.*

New York.

Nov. 25, 1874.

American Pig.—Prices continue weak, with no improvement in the demand. It is very difficult to arrive at what is really being done, as the majority of dealers throw a mystery over their transactions, which tends to lead one to suppose that remarkably low prices are being accepted. There is no doubt but that lower prices than our regular quotations are being taken every day. The sales during the past week have been for pressing necessities only, and the quotations may be given as follows : No. 1 foundry, $26@$27 ; No. 2, $25@$26 ; and gray forge, $23@$24. Yesterday, a number of the representatives of Furnace Companies met at the rooms of the American Iron and Steel Association in Philadelphia, and resolved that there must be a reduction in the amount of iron produced ; they appointed a committee to confer with the various producers, with the view of having this interest fully represented at a meeting called for December 10. That the supply is greatly in excess of the demand, is well known, there being in Eastern Pennsylvania and New Jersey an estimated stock of nearly 150,000 tons. With this stock on hand, which is constantly increasing, they all acknowledge the folly of continuing the present production ; but would rather see their neighbors blow out or damp down. There was one weak point in the meeting of yesterday : many of our large producing companies took no part, and, we are informed, will not. It would probably be almost impossible to form a combination of the pig iron producers which would stand thirty days; there are too many interests represented, and many cannot afford to be under the control of the others.

Scotch Pig.—The arrivals during the past week amounted to about 400 tons, most of which had been sold ahead. The sales have been mostly in small lots for immediate consumption.

The advance in the prices of gold and exchange, in connection with the light stock, has given more firmness to prices. The quantity on the way is light, with but little expected, owing to the lateness of the season and the high prices in Glasgow. We quote Eglinton at $37@$38 ; Glengarnock, $39@40, and Coltness, $41.

Rails.—There have been no transactions to note. There are rumors of sales, one of which is a large sale of steel rails to the Canadian Government, by an English mill, at about £11 10/, delivered in Montreal. It is rumored that an American mill offered, for this order, to deliver steel rails in Montreal at $65, gold. The ordinary quotations for steel rails are $75@80, and iron $50@54, at the mill, according to time, &c.

Old Rails.—We note the sale of 500 tons old rails, deliverable at Pottsville, at $31, or equal to about $27 75 here.

Scrap Iron.—We note the sale of 400 tons for Eastern delivery, said to be at $28 per ton ; but there are particulars which do not make that figure the true market value of the lot.

Chicago Nov. 24, 1874.

Specially reported by Messrs. ROGERS & Co., dealers in Scotch and American pig iron.

Quotations are as follows :

No. 1 Coltness.....$46 00@ ....
No. 1 Gartsherrie..... 45 00@ ....
No. 1 Summerlee..... 44 00@ ....
No. 1 Glengarnock..... 42 00@ ....
No. 1 Eglinton..... 40 00@ ....
Warner's "American Scotch"..... 41 00@ ....
Massilon No. 1 Foundry..... 37 00@ ....
No. 1 Grand Tower Mo. ores (Bituminous)..... 33 00@ ....
No. 2, " " " ..... 30 00@ ....
No. 1 Mill..... 28 00@ ....
Union "A" 1 (Anthracite)..... 32 00@ ....
Union "B" 1 (Anthracite)..... 30 00@ ....
No. 1 Lake Superior (charcoal)..... 34 00@ ....
No. 2 Lake Superior " ..... 32 00@ ....
No. 3 Lake Superior " ..... 36 00@ ....
No. 4 Lake Superior " ..... 42 00@ ....
Bessemer Steel Rails..... 85 00@90 00
New Iron Rails..... 55 00@ ...
Old Rails..... 28 00@30 00

Cleveland. Nov. 25, 1874.

Specially reported by Messrs. C. E. BINGHAM & Co., dealers in pig iron and iron ore

You will note below about $1 per ton decline from our last quotations.

No. 1, Bituminous " ..... 30 00@ ...
No. 2, " " ..... 28 00@....
No. 1, " Gray Forge..... 26 00@....
No. 1, Lake Superior Charcoal..... 32 00@....
No. 2, " " ..... 31 00@....
No. 3, " " ..... 34 00@....
No. 4, " " ..... 35 00@....
Nos. 5 and 6 " ..... 36 00@....
American Scotch, No. 1, Cherry Valley..... 34 00@....
" " No. 2..... 31 00@....

Cincinnati. Nov. 24. 1874.

Specially reported by Messrs. TRABER & AUBERT, commission merchants for the sale of pig iron, blooms, ore, etc.

We have no change to report in the condition of our pig iron market. We continue to quote :

CHARCOAL.

Hanging Rock, No. 1, Foundry..... .....$30 00@32 00—4 mos
" No. 2, " ..... 28 00@29 00—4 mos
Mill ..... 26 00@27 00 —4 mos
Tenness e No 1, Foundry..... 28 00@30 00—4 mos
Tennessee. No. 2 " ..... 27 00@28 00—4 mos
" Mill..... 26 00@ ....—4 mos
Missouri, No. 1, Foundry..... 31 00@32 00—4 mos

STONE COAL.

Ohio No. 1, Foundry..... 28 00@30 00—4 mos
" No. 2, " ..... 26 00@27 00—4 mos
Ohio Mill..... 25 00@26 00—4 mos
Missouri, No. 1, Foundry..... 28 00@30 00—4 mos
" No. 2, " ..... 26 00@27 00—4 mos
" Mill..... 26 00@ ....—4 mos

CAR-WHEEL.

Hanging Rock, C. B..... 50 00@53 00—4 mos
Tennessee " ..... 45 00@48 00—4 mos
Missouri " ..... 45 00@48 00—4 mos
Alabama " ..... 45 00@48 00—4 mos

BLOOMS.

Charcoal ..... 80 00@ 90 00—cash

SCRAP IRON.

Cast..... 75@ 1 00—cash
Wrought ..... 1 25@ 1 50—cash

Indianapolis, Ind. Nov. 23, 1874.

Specially reported by NELSON KINGMAN, broker and dealer in pig iron, etc.

Continue quotations.

New Rails at mill.....$62 00@64 00
Old Rails " ..... 30 00@31 00
Hanging Rock Charcoal Pig No. 1 foundry 35 00@36 00—4 mos
" " " " 2 " 32 00@33 00—4 mos
" " " Mill..... 29 00@31 00—4 mos

STONE COAL.

Indiana No. 1 Foundry pig Planet furn'e. 32 00@34 00—4 mos
" 2 " " " 31 00@32 00—4 mos
" 1 Forge " " 29 00@ ....—4 mos
" 2 " " 27 00@ ....—4 mos
Ohio No. 1 Foundry pig..... 33 00@34 00—4 mos
" 2 " ..... 31 00@32 00—4 mos
" 1 mill ..... 28 00@30 00—4 mos
Merchant Bar, card rates ..... 60 00@62 00—3 mos
1st quality C. H. No. 1 Boiler Plates, per lb..5¾@6 c.—3 mos

1st " Com. Sheet, for No. 24, W.G. " ..... 5 c.—3 mos
1st " Charcoal Sheet " " " ..... 6 c.—3 mos
Best Bloom Galvanized Sheet, discount 20 per cent.....—cash.
3d quality " " " 30 " .....—cash.
f. o. b in Indianapolis.

Louisville. Nov. 24, 1874.

Specially reported by GEORGE H. HULL, Esq.

The market is dull and lower.

The usual time, 4 months, is allowed on the quotations below.

HOT BLAST—CHARCOAL.

No. 1 foundry, from Hanging Rock ores		$30 00@32 00
No. 2 " " "		27 00@28 00
No. 1, forge, " "		25 00@26 00
No. 1, foundry, " Tennessee "		27 00@30 00
No. 2 " " "		26 00@27 00
No. 1, forge, " "		24 00@25 00
No. 1, foundry, " Alabama "		27 00@30 00
No. 1 " " Iron Mountain "		30 00@32 00

HOT BLAST—STONECOAL.

No. 1, foundry, from Missouri ores		30 00@32 00
No. 2, " " "		28 00@30 00
No. 1, forge " "		27 00@28 00

COLD BLAST—CHARCOAL.

Wheel from Hanging Rock ores		45 00@50 00
" " Tennessee "		38 00@43 00
" " Alabama "		40 00@45 00
" " Georgia "		40 00@45 00
" " Missouri "		38 00@45 00
" " Kentucky "		40 00@45 00

Milwaukee, Wis. Nov. 23, 1874.

Specially reported by Messrs. R. P. ELMORE & Co.

Per ton of 2,240 lb.

Scotch ranges		$40 00 to$45 00
No. 1, Lake Superior Charcoal		36 00 to 8 00
" 2, " " "		34 00 to 36 00
" 1, " " Anthracite		35 00 to 36 00
" 2, " " "		33 00

San Francisco.

From the *Commercial Herald* of Nov. 12.

The ship *Northern Light* for New York carried 767 tons Chrome and 40 tons Copper Ore. The *Cornwallis* from Coquimbo brought up 250 tons Pig Iron. The demand for Oregon Pig Iron exceeds the supply; it being charcoal soft, the quality is superior, selling readily at $46. Tin Plate is plentiful and dull of sale. Other manufactured goods nominal.

St. Louis.

From the *Railroad Register*, November 20.

No. 1 foundry, Stone coal, Mo	$32 00@$34 00
No. 2 foundry, " "	28 00@ 30 00
Mill " "	26 00@ 28 00
No. 1 foundry, charcoal, Mo	30 00@ 32 00
No. 2 " " "	28 00@ 30 00
White and mottled charcoal, Mo	33 00@ 34 00
Tennessee charcoal, No. 1 foundry	32 00@ 34 00
Alabama charcoal, No. 1 foundry	32 00@ 34 00
Scotch, according to brand	43 00@ 45 00
Massillon	38 00@ 40 00
American Scotch	40 00
Hanging Rock	34 00
Missouri, cold blast charcoal	43 00@ 45 00
Tennessee, " "	45 00@ 49 00
Kentucky, " "	55 00@ 57 00
Alabama & Georgia, co'd blast charcoal	46 00@ 48 00
Missouri charcoal blooms	85 00
Ore—Iron Mountain	7 00
Maramec	6 50

Pittsburgh, Pa. Nov. 24, 1874.

Specially reported by A. H. CHILDS, Esq., commission merchant for the sale of pig iron, blooms, ore, &c.:

The mill owners and puddlers have not yet arrived at any satisfactory solution of the wages question, and the possibility of the mills shutting down in case the reduction is rejected, is having a very depressing influence on the metal market. Purchases are made more cautiously than ever, and only small lots taken for immediate use.

Quotations are:

No. 1 Foundry, anthracite or bituminous	$26 50@27 00—4 mos
No. 2 " " "	25 50@26 00—4 mos
Gray Forge " "	24 00@24 50—4 mos
White and mottled " "	22 50@23 00—4 mos
Hot blast charcoal	30 00@35 00—4 mos
Cold " "	40 00@45 00—4 mos

From the *American Manufacturer* of Nov. 25, 1874.

PIG IRON.

The general position of the pig iron trade has not varied much since the date of our last review; there was a very fair volume of business in the aggregate, but the sales were mostly small, and the demand is still confined wholly to supplying the immediate wants of consumers. As noted in our review, the stock of pig in yards of commission merchants is heavy, larger, perhaps, than it ever was before, and now that river navigation has been resumed, it will doubtless be increased largely, as there are large quantities waiting for river transportation to come to this market. We were informed, recently, that there are some 10,000 tons at St. Louis alone awaiting shipment by river to this point. However, the stock in the hands of consumers is small, unusually so; the mills have been for some time past, and are still, buying only for immediate necessities, and as long as the market continues in its present depressed condition, and the negotiations between the manufacturers and puddlers remain unadjusted, the hand-to-mouth policy will be strictly adhered to. It is not to be expected that mill owners will stock up as long as there is a possibility of prices going still lower, and besides, if the puddlers refuse to accept the reduction in wages, a general suspension before long is not improbable, as manufacturers claim that they cannot pay present rates for boiling and compete with the Eastern mills. This is the situation, so far as Pittsburgh is concerned, and it must be conceded that it is not very encouraging to either producers or consumers. It is hoped, however, that the hitch between the manufacturers and puddlers will be satisfactorily adjusted, also, that orders will come in more freely when the new year opens up. A suspension by the mills would be productive of bad results and we sincerely hope that it may be avoided. As compared with last week, there has been no quotable change in prices, but the general spirit and tone of the market is in buyers' favor, the tendency continuing downward.

MANUFACTURED IRON.

Orders for all kinds of finished irons continue to come in sparingly, and are, as the saying is, few and far between, but they are mainly small, indicating that both jobbers and consumers have resolved for the time being, at least, to carry no more stock than they can possibly help. Some of the mills, particularly those having specialties, are working full time, but others have changed recently from double to single turn, and the indications are that trade is destined to continue slow during the balance of the year. Prices continue weak, in sympathy with the raw article, although, as compared with last week, they are without quotable change, and we repeat former quotations: $2 40@$2 50 for merchant bars; $4 50@$4 60 for 24 sheet, and $4 70@$4 80 for hoop. The fact is that it is difficult to quote with any degree of correctness, as there is no uniformity in rates; the character of the order, as well as the buyer, have a good deal to do with the price.

Pig metal sales reported for the *American Manufacturer* for the week ended November 11, 1874:

BITUMINOUS COAL SMELTED FROM L. S. ORE

20 tons	No. 2 foundry	$25 50—4 mos
1390 "	gray forge	24 50—4 mos
50 "	mottled, N	23 50—4 mos
100 "	white	25 00—4 mos

ANTHRACITE.

50 tons	gray forge, N	$25 00—4 mos

CHARCOAL.

100 tons	No. 2 foundry, L. S	33 00—4 mos
10 "	Cold Blast, Va	45 00—4 mos

METALS.

NEW YORK, Nov. 25, 1874.

Bullion.—Fine silver bar is quoted at $1 27½@$1 28¾, gold, per ounce, and fine gold bar at par ($20 67, gold, per ounce.) to ½ premium.

Copper.—We note sales of about 300,000 lb. spot copper at 23c.; 200,000 lb. at 23¼c., for delivery from 1st to 15th of December; 100,000 lb., at 23½c., for delivery in early January; and 600,000 lb. at 24c., deliverable from December to April. Prices to-day are firm at the latter quotations. The last boat is reported to have left the Lake region. Cable information to-day quotes Chili bars at £89. Yesterday the London market was reported easier, but it had no influence on this market upon the opening of business this morning. There is every indication of a rather firm market, and should the demand increase prices will probably advance.

We are pleased to note the rebuilding of the Wheatley Copper Works, at Phœnixville, Pa. They will contain two reducing furnaces and one refinery, and it is expected will be ready for smelting by the middle of December.

Tin.—The large transactions reported in our last, without particulars, are now reported to amount to 5000 slabs of straits on spot, and 10,000 to arrive, at 21½c.@21¾c., gold. These sales have been made to strong dealers who are able to hold, and considerable strength has been given to the market—some dealers not quoting at all. The quotations to-day are, Straits, 22¼c.; English common, 21¾c.; English refined, 22c.; Banca, 26c. To-day's London quotations by cable are: Straits, £94; Common, £98@£99, and Refined £100@£101. There is considerable business reported in tin plates, as being done in a small way. The quotation to-day at Penang is $23¾ per picul, and $24½ at Singapore.

Lead.—The sales since our last report aggregate about 100 tons at $6 25@$6 30. The market is a shade easier to-day, $6 25 being the asking price. The Government is making no sales, but holds firm at $6 35. In Foreign there have been some jobbing sales at $6 80. The stock of lead in this market is about 2500 tons, mostly Selby, which is held at $6 35 from dock, and $6 40 from store.

Spelter and Zinc.—There has been considerable inquiry for spelter, and the sales on spot, but more particularly for delivery in January, aggregate quite large at 6¾c.@7c. gold, for Foreign. There have been small sales of Domestic. Sheet zinc is very scarce, and the arrivals are being promptly taken up at about 9c. gold.

Antimony.—This article is in light stock, with a very good demand, and is firm at 12¾c. gold.

Manganese.—Virginia Fallowfield is quoted at 2¼c. gold, Georgia manganite 3¼c., and New Brunswick Manganite 3c. The New Brunswick mines do not yield at present any gray that possesses preference over the black ore, as it is much softer.

Quicksilver.—The quotation here is $1 62½ per lb., and in London £25. The San Francisco *Commercial Herald*, of November 12, says: "Last week we reported a contract sale, for the year, of 4800 flasks Redington's, to be delivered in monthly installments of 400 flasks at the current price. The product of this mine for October exceeded 1000 flasks. During this week the price here has been advanced to $1 55; 600 flasks for export sold on terms withheld.

Miscellaneous Stocks.

NEW YORK, Nov. 27, 1874.

The following list, during the operations of the past week, has exhibited considerable irregularity, with the volumme of transactions hardly up to the average. The most prominent event of the week has been the attempt of a large majority of the Directors and stockholders of the Quicksilver Mining Company, at a regular meeting held at the Company's office, to equalize the common and preferred stock, then equally dividing the accumulated earnings into a dividend of $9 per share. The attempt was only frustrated by the serving of an injunction by a preferred stockholder on the President, Directors, &c., restraining any such proceeding, declaring that such a resolution would jeopardise the interests of preferred stockholders, simply to further the motives of personal interests by such illegal action. We note transfers of Quicksilver Mining Company on the 24th inst., aggregating 4,200 shares, at from $32¾ to $35¼ per share. At the Philadelphia Board the market, during the week, has been comparatively inactive. The most prominent of the transactions has been the transfer of 5,200 shares of the Lehigh Coal and Navigation Company, on the 24th inst., at from $48 to $49¼ per share. A dividend of $1 per share has been declared by this Company, payable on demand.

New Jersey Central R. R. Co	—	106¾
American Coal Co	—	50
Maryland Coal Co	—	20
Pennsylvania Coal Co	—	240
Quicksilver Mining Co, Preferred	—	42½
" " " Common	—	33¾
Reading R. R. Co	—	54⅞
Delaware and Hudson Canal Co	—	115¾
Lehigh Coal and Navigation Co	—	48
Lehigh Valley R. R. Co	—	61½
Catawissa Preferred	—	39¾
Delaware, Lackawanna & West. R.R.Co.	—	109⅛
Consolidated Coal Co	—	47¾
Little Schuylkill R. R	—	47⅞
Huntington & Broad Top R. R. prefrd	—	12
St. Louis & Iron Mountain	—	25
Susquehanna Canal	—	—
Delaware Division Canal	—	—
Spring Mt. Coal Co	—	75
Cumberland Coal and Iron Co	—	48
N. Y. & Nova Scotia Iron Co	—	116

Boston Stock Market.

BOSTON, Nov. 26, 1874.

A general advance characterizes the condition of the following list of copper stocks, as compared with our last. The assessment levied by the Allouez Mining Co. has been paid, a decided advance of this item has accordingly transpired, the sales during the week being from $7 to $8 per share in advance of our last quotations. A recent contemporary says, with regard to the Calumet and Hecla lode, "that it is richer in places than it ever was before, some of the conglomerate now being taken from the mine is more like 'mat copper' than anything else." We note sales of the following on the 25th inst. at the prices annexed: Allouez, $10¼ to 12¼ per share; Calumet and Hecla, $135½ per share; Quincy, $42¾ to $43¼ per share; Ridge, $9 per share. 300 shares of the Franklin Mining Co. changed hands at from $7¼ to 7¾ per share.

Allouez	—	Pewabic	—
Calumet and Hecla Co.	136	Phœnix	—
Copper Falls	10¾	Quincy	4¾
Central	24	Ridge	8
Franklin	—	Rockland	—

San Francisco Stock Market.

BY TELEGRAPH.

NEW YORK, November 26, 1874.

A slight decline in Savage and Belcher are the only exceptions to a general advance of the following list. Consolidated Virginia still continues its upward movement—our quotations to-day placing it at $161 per share—this brings the value of this mine to something over $17,000,000, a sum sufficient to build a small hill of solid silver. We note the following assessment: Raymond and Ely Mining Co $3 per share, delinquent Dec. 10.

Savage	87	Raymond & Ely	16½
Crown Point	57	Meadow Valley	5⅞
Yellow Jacket	108	Eureka G. V. Bid	8½
Kentuck	23	Ophir	—
Chollar Potosi	66	Alpha	—
Gould & Curry	25	Consolidated Virginia	161
Belcher	52	Overman	—
Imperial	13	Sierra Nevada	12¼

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Announcements to Members and Associates.

I. The ENGINEERING AND MINING JOURNAL, which is the Organ of the Institute, and contains its proceedings, transactions and notices of meetings, will be sent to each Member and Associate on the payment of his annual dues. Back numbers cannot, as a rule, be sent.

II. Dues (ten dollars per annum) are payable on election and at the annual (May) meeting. Members and associates elected at the February meeting pay ten dollars only to May of the following year. Remittances should be made, as far as possible, by P. O. Order, payable to the Secretary.

III. The Council earnestly requests members to forward to the Secretary, for preservation, copies of all printed mining and geological reports, particularly pamphlets, which may fall in their way. It is believed that by this means a large amount of valuable fugitive information concerning different regions and properties in this country, may be caught and preserved.

IV. Blank proposals for membership can be had on application to the Secretary.

V. The first volume of Transactions of the Institute will be sent by the Secretary to any address, on the receipt of five dollars.

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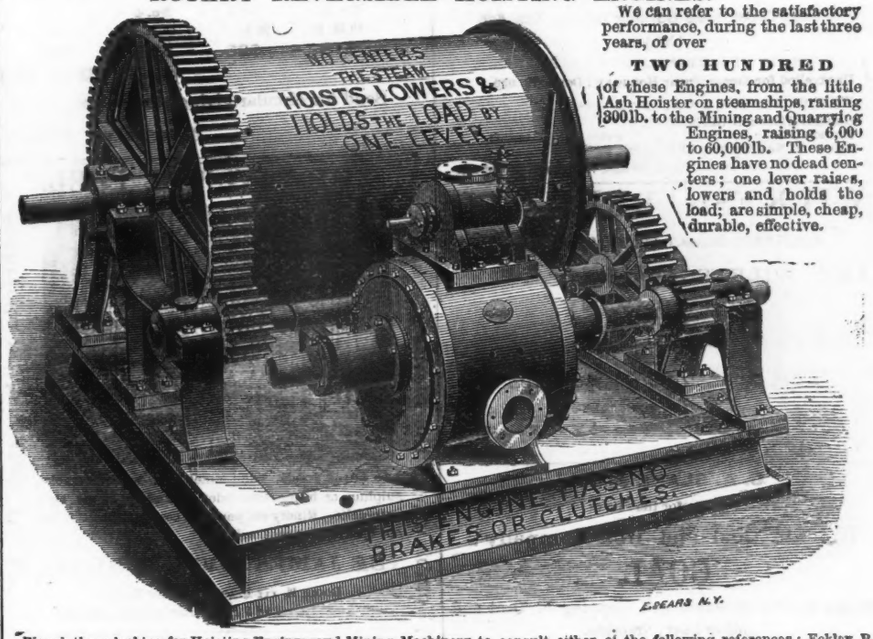

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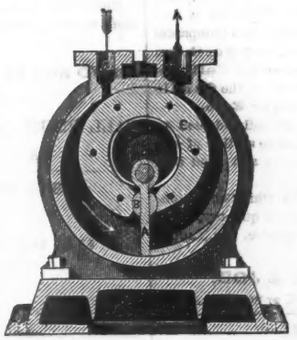

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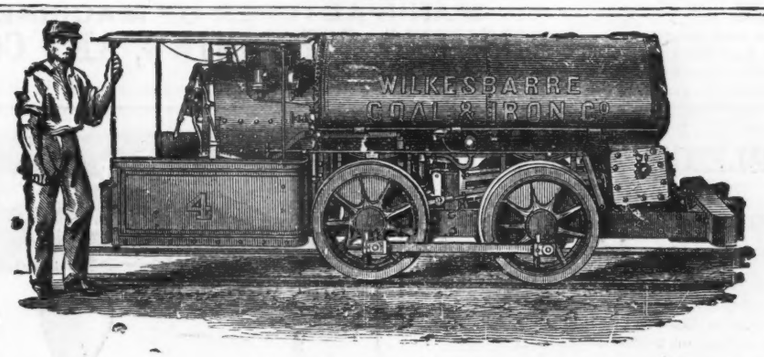

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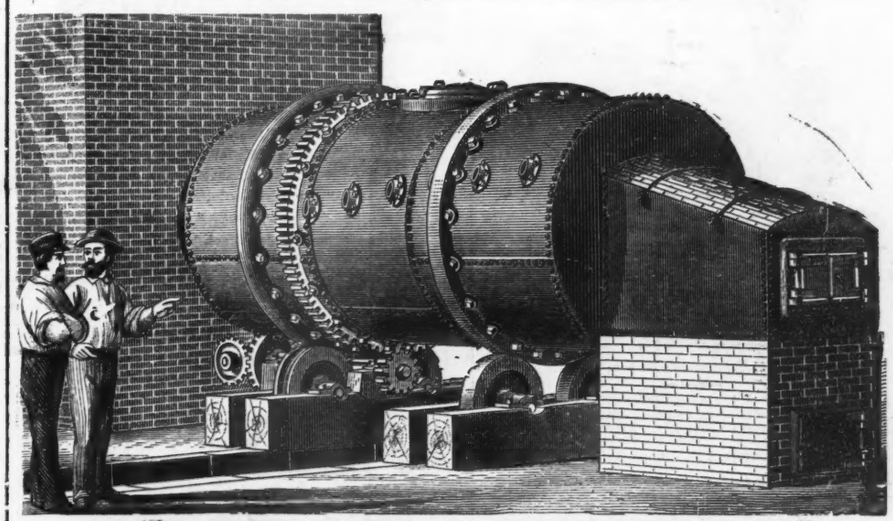

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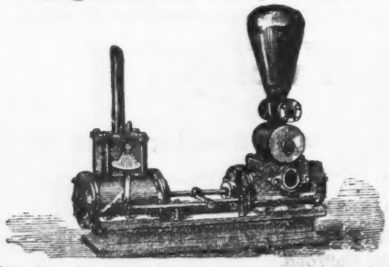

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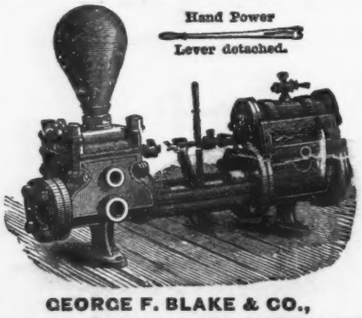

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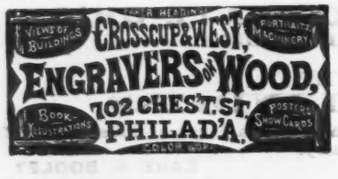

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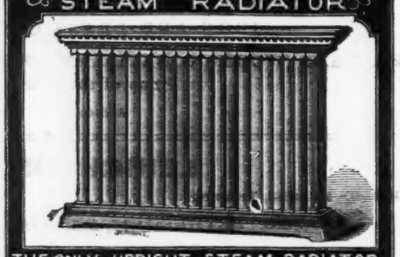

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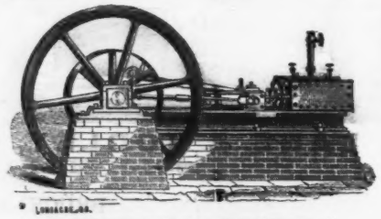

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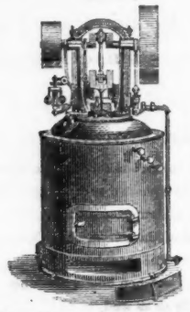

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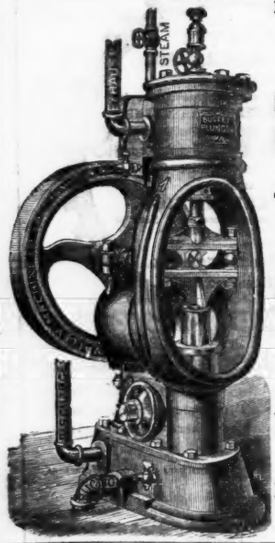

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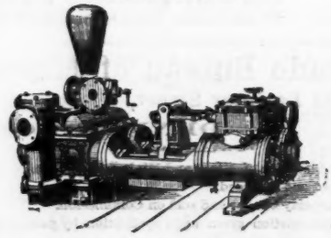

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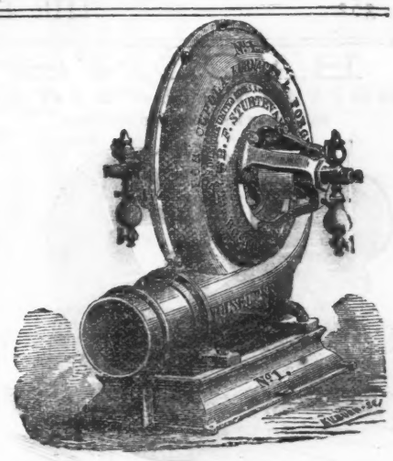

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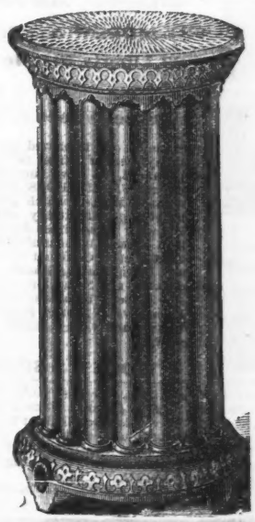

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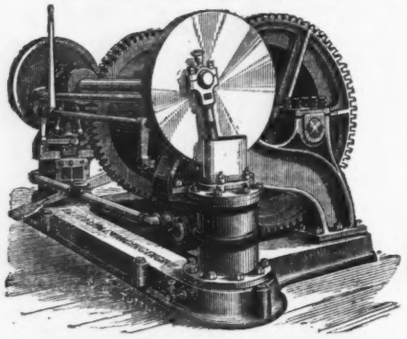

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☞ Look at following extract, Ingersoll Co.'s letter of excuses, ENGINEERING AND MINING JOURNAL, June 6, and compare with their advertisement: "I had *two* drills at the mine from the commencement, one beginning work on the 4th of April, the other on the 7th of the same month, and both drills working until the 1st of May." Signed, C. N. ELLIOTT, Superintendent Ingersoll Rock Drill Co.
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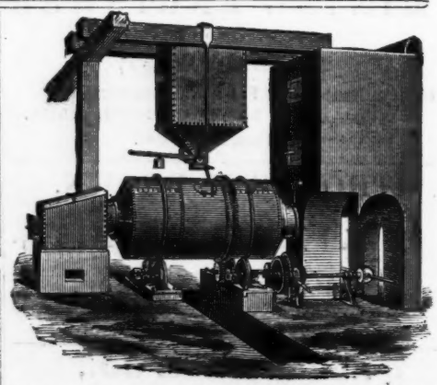

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